

Exhibit 4a

8/5/2019

Oregon Secretary of State Administrative Rules

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

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(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

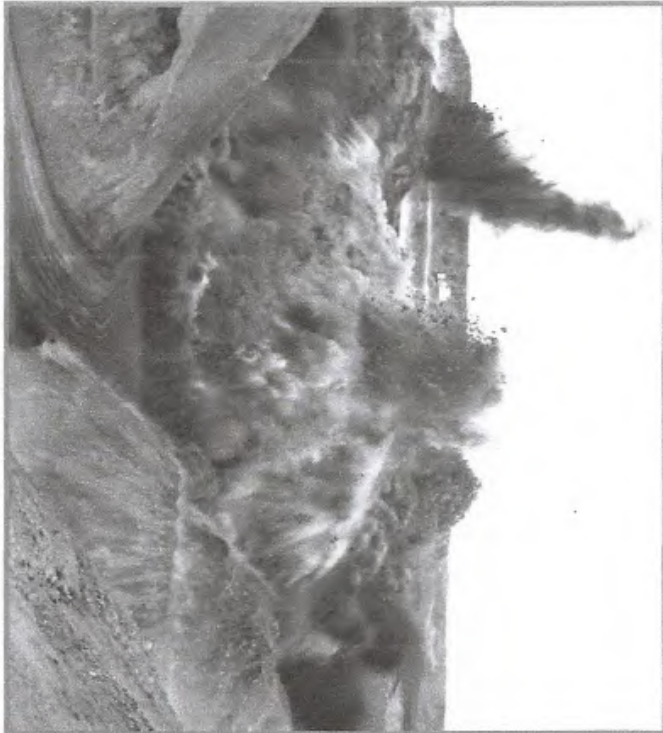
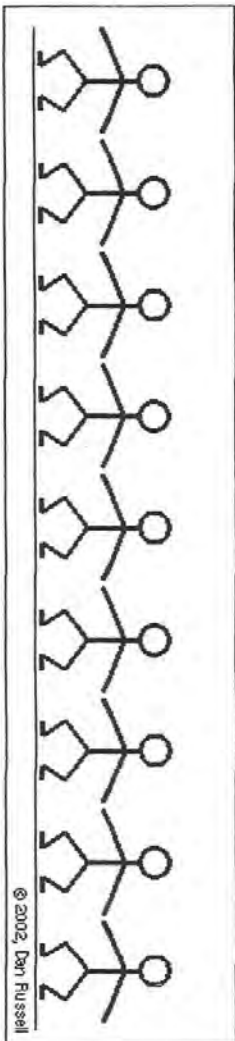


Exhibit 5b

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

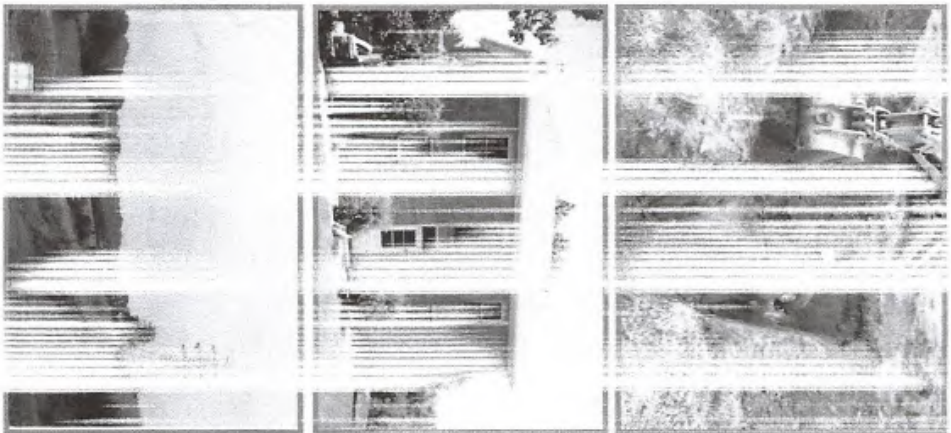
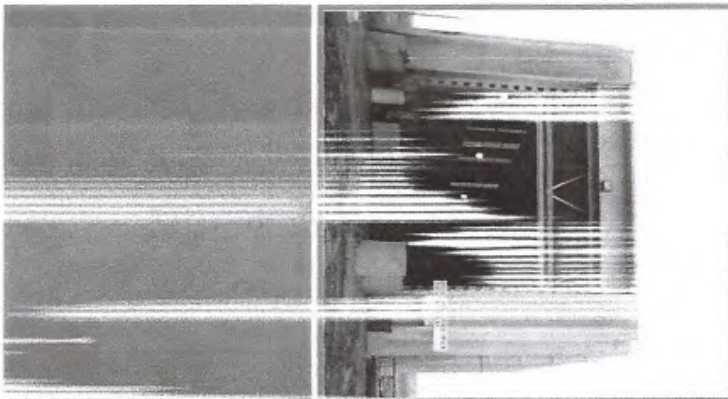
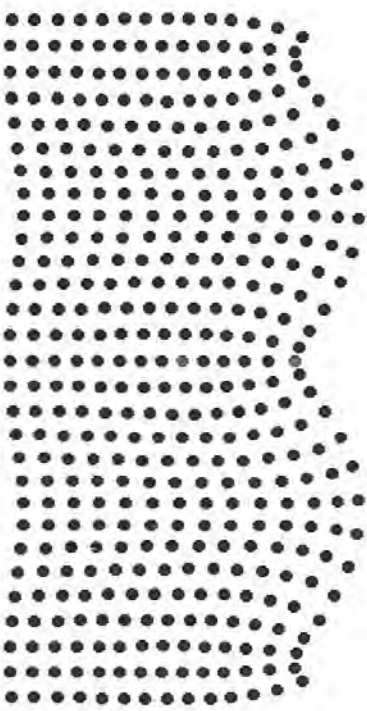


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



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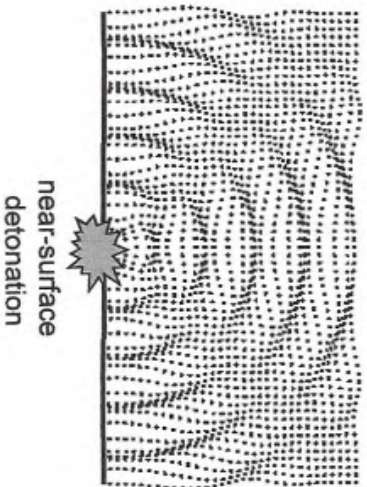
Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

② Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.

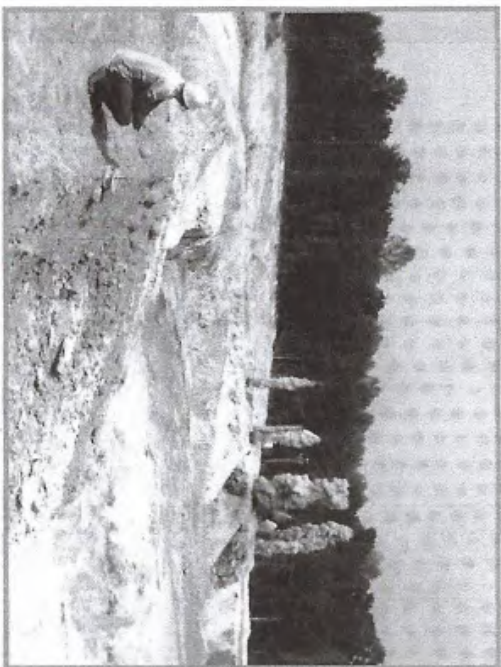


Exhibit 5 e

Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

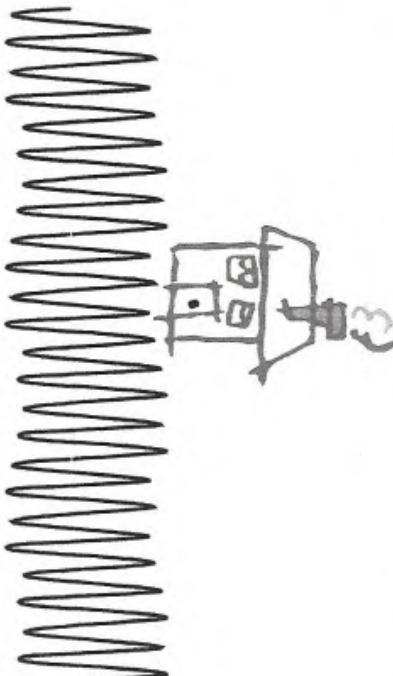
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

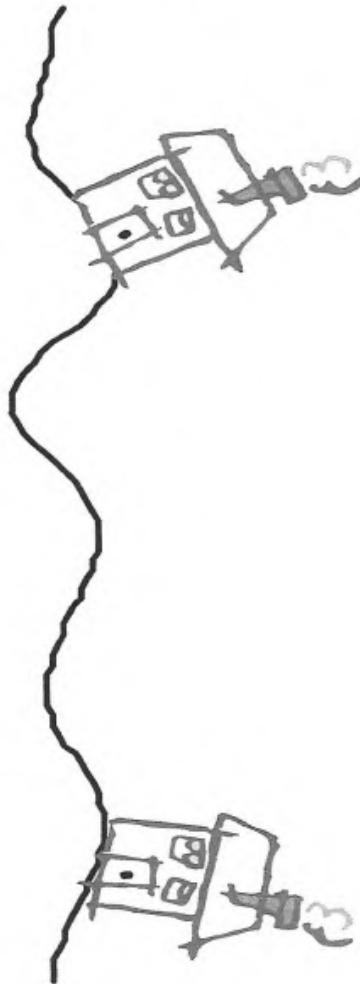


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

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A noisy problem - Harvard Health

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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

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Hospital Noise: How Noise Reduction Helps Patients Heal



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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

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Hospital Noise: How Noise Reduction Helps Patients Heal

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Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

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Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



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acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

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8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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Front Psychol. 2013; 4: 578.

PMCID: PMC3757288

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10 12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)

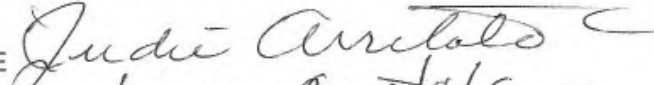


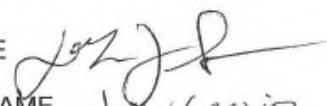
SCIENCE
NEWS


EXPERT
OPINION

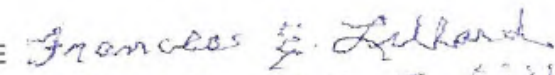
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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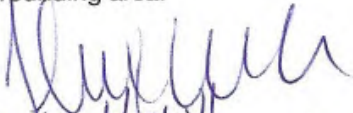
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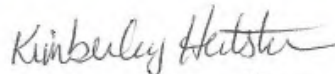
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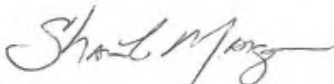
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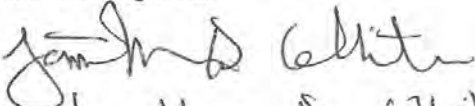
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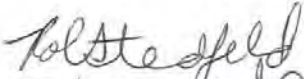
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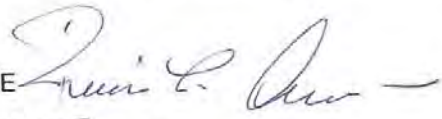
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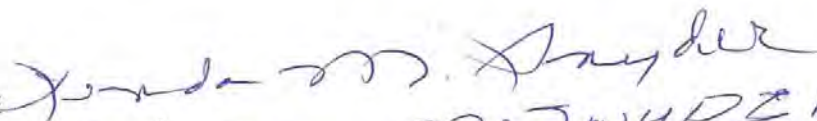
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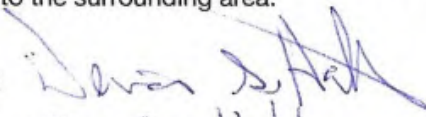
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SIGNATURE



PRINTED NAME

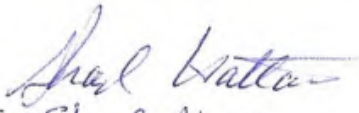
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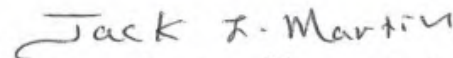
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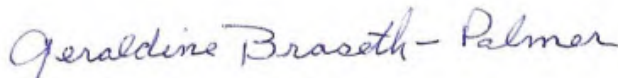
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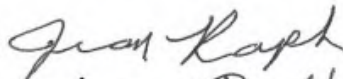
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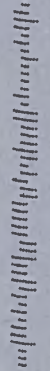
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AUG 19 2019

DEPARTMENT OF ENERGY



August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I doubt it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

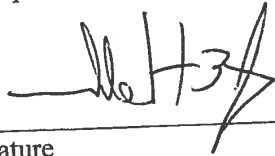
Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power’s ASC. If the IPC surveying and engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it’s disquieting to imagine the difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake route rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by a individuals whose remote properties and summer cabins would have been impact by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASCand DPO which will be addressed in a separate comment.



Signature

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Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Gabrielle ~~Watson~~ Henderson

Mailing Address (mandatory) 219 Harrison Ave
La Grande, OR 97450

Phone Number (optional) () _____ Email Address (optional) _____

Today's Date: 5/20/19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony
(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Verbal testimony speech

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1 massive construction trucks -- that is
2 Modelaire/Hawthorne Loop -- but to serve the hospital
3 when needed for the residents of 37 homes of men, women,
4 and children who walk -- I might add, there are no
5 sidewalks on that loop -- or drive daily, a neighborhood
6 which you could destroy, seemingly without giving it
7 another thought. Thank you.
8 I will be providing written testimony another
9 time.
10 HEARING OFFICER WEBSTER: Thank you.
11 MS. ADRIAN HENDERSON: Hello. I'm Adrian
12 Henderson. Thank you very much for letting me speak
13 today. I live at 219 Harrison in La Grande, Oregon.
14 Thank you for allowing me to testify.
15 You've already heard about the problems with
16 noise and invasive weeds. I am concerned with the lack
17 of requiring Idaho Power to make sure weeds do not go to
18 seed or make them clean their equipment before it leaves
19 the road or moves from one person's property to another.
20 As a member of the Chickasaw/Choctaw/Umatilla
21 tribe, I want to remind you of how important this is to
22 the tribes because of how it impacts our first foods.
23 Comments were provided by the tribes about this.
24 You also heard from the developer that they
25 would be working with the counties to make more changes

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1 to their weed plan. What I'm concerned about is that
2 the only thing Idaho Power is required to do are the
3 things that you include in the site certificates. The
4 site certificates need to state that Idaho Power must
5 comply with the state rules that require them to protect
6 the land from seeds being spread from their transmission
7 line, as long as the lines are in place. This is a
8 major problem, and why we need to be listening to the
9 people who are here today.
10 A statement by the developer that they plan to
11 fix something later means nothing if you do not include
12 it in the site certificate. The public will no longer
13 have the right to appeal what they are doing; in fact,
14 they don't even need to receive the information about
15 what the developer is actually including in their weed
16 plans.
17 This is why you will be receiving in writing
18 comments from me and others in this audience about what
19 needs to be changed.
20 I hope you will address the many problems you
21 are hearing about or denying Idaho Power permission to
22 build a transmission line that will cause huge damages,
23 increase our electric costs, but give us nominal
24 benefits.
25 Unlike Idaho Power customers, we are not

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1 having blackouts, equipment failures, or other problems
2 that this utility company are having. Maybe they would
3 have so many more problems if they would develop
4 energy -- so many less problems if they would develop
5 energy resources in Idaho instead of moving in hundreds
6 of miles of high-voltage transmission lines to get it to
7 their customers.
8 Thank you very much. Appreciate it.
9 HEARING OFFICER WEBSTER: Thank you.
10 Following Mr. Rosenbaum, we will hear from
11 Lois Barry.
12 MR. MICHAEL ROSENBAUM: A little bit of an
13 aside here, interestingly enough, I received an email
14 from my insurance company today: "Help protect your
15 home from wildfire. Find out how. Dear Michael,
16 Wildfires can occur suddenly with little to no warning.
17 We want to help you stay safe and prepared. Review the
18 resources below to learn how to protect yourself and
19 your property from wildfire."
20 I would like to thank the Council for this
21 opportunity to present testimony to the EFSC.
22 My name is Michael R. Rosenbaum. I reside at
23 1402 First Street in La Grande. I first moved to
24 La Grande in 1969, and I have lived here for a total of
25 27 years, having left and returned twice. I work

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1 seasonally for a federal agency and am currently a
2 member of the City of La Grande committee dedicated to
3 wildfire awareness, protection, and preparedness. The
4 views expressed here are my own, and do not represent
5 either my employer or the committee of which I'm a
6 member.
7 According to Wikipedia, there are a total of
8 946 incorporated and unincorporated cities in Oregon.
9 In the 2018 study "Exposure of human communities to
10 wildfire in the Pacific Northwest," researchers Joe H.
11 Scott and Julie Gilbertson-Day of Pyrologix and
12 Richard D. Stratton of the USDA Forest Service, ranked
13 La Grande number 40 of 50 communities with the highest
14 community exposure ranking with 5,426 housing units
15 exposed to wildfire and a burn probability rate of 138.
16 You will note that La Grande is edged by open
17 grasslands and timber on its southwest, west, and
18 northwest flanks, two of these three directions housing
19 the proposed Boardman to Hemingway transmission line.
20 The June 30, 2016, revision of the Union
21 County Wildfire Protection Plan, the CWPP, details in
22 the Union County Risk Assessment Summary of the
23 Northeast Oregon Multi-Jurisdictional Natural Hazard
24 Mitigation Plan, wildfire that either did encroach or
25 had the potential to put La Grande at risk. It details

TESTIMONY FOR BOARDMAN TO HEMINGWAY LA GRANDE PUBLIC HEARING 6/20/19.

My name is Adrian Henderson. I live at 219 Harrison in La Grande. Thank you for allowing me to testify. You already heard about problems with noise and invasive weeds. I am concerned with the lack of requiring Idaho Power to make sure weeds do not go to seed or make them clean equipment before it leaves the road or moves from one person's property to another. As a member of the _____ tribe, I want to remind you of how important this is to the tribes because of how it impacts first foods. Comments were provided by the tribes about this. You also heard from the developer that they would be working with counties to make more changes to their weed plan. What I am concerned about is that the only things Idaho Power is required to do are the things that you include in the Site Certificate. The site certificate needs to state that Idaho Power must comply with the state rules that require them to protect land from seeds being spread from their transmission line as long as the line is in place. This is a major problem and why you need to be listening to the people who are here. A statement by the developer that they plan to fix something later means nothing if you do not include it in the site certificate. The public will no longer have the right to appeal what they doing, and in fact, they do not even receive information about what the developer actually included in their weed plan. That is why you will be receiving in writing comments from me and others in the audience about what needs to be changed. I hope you will address the many problems you are hearing about or deny Idaho Power permission to build a transmission line that will cause huge damages, increase our electric costs but give us no real benefits. Unlike Idaho Power customers, we are not having blackouts, equipment failures or the other problems that this utilities customers are having. Maybe they would not have so many problems if they would develop energy resources in Idaho instead of moving it hundreds of miles on high voltage transmission lines to get it to their customers.

Date: August 14, 2019
To: Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St., N.E.
Salem, OR 97301
Email: B2H.DPOComments@Oregon.gov
Re: Idaho Power Application for a Site Certificate for the
Boardman to Hemingway Transmission Project 09/28/2018;
Draft Proposed Order 05/23/2019.

Dear Chair Beyeler and Members of the Council,

Perhaps a respectful address of '**Stewards Beyeler and...**' would be more reflective of *our shared human interdependencies* at this juncture in Oregon's history. The building of the Columbia River's dams yet boasts a place in the history texts of Oregon's elementary schools; while resultant mitigations barely dare whisper a plea for remembrance to our youth. I'd venture, a too common theme of the gluttonous-driven aspect of '*progress.*'

In accepting your *positions of service* to Oregonians, are you *accurately and sufficiently informed* as to constraints essential to restoring and sustaining a viable **Blue Mountain Ecosystem**, just one of Oregon's nine ecosystems addressed by the diverse and diligent collaborators of *The Oregon Conservation Strategy, 2016* (updated from initial publication in 2006)? <http://oregonconservationstrategy.com/ecoregion/blue-mountains/>

Creative planning work has been done at all levels. Plans are produced by federal, state, and local public agencies, private land managers, regional bodies, and local, regional, or watershed volunteer groups. Many agencies have built collaborative alliances and are streamlining processes while investing public funds more frugally and wisely. Oregon's land use planning program provides a **consistent framework** for local governments to assess open space and natural area **protection**.

—excerpted section: *Planning and Regulatory Framework, Oregon's Planning Efforts.*

As a Protected (OAR 345-022-0040), Scenic Resources (OAR 345-022-0080), and Recreation (OAR 345-021-0010(1)(t)(A)) Area, impacts to Oregon's Ladd Marsh Wildlife Management Area would be severe and permanent. Ladd Marsh was established as a wildlife mitigation area for past federal projects and the refuge should not be compromised.

IPC itself recognizes and designates Ladd Marsh as "*irreplaceable.*"

"As explained in Attachment T-3, Table T-3-1, Ladd Marsh WA is an important opportunity because of its designation status, high level of use, rareness, and ***irreplaceable*** character per OAR 345-021-0010(1)(t)(A)." page T-14 of the ASC.

Please consider,

You, as Oregonians, as Council, as Stewards, as individual humans, embodying the potential for applied wisdom, *can act to sustain*, in behalf of

- Oregonians entrusting you the potential quality of our descendants' futures, and
- Oregon's Tourism Industry viability, within the The Blue Mountain Ecosystem —

Ladd Marsh's essential, wondrously-congestive, hour-glass migratory path, representative of a diverse web of interdependent life and food resources.

You hold us.

Moving forward, flourishing and lucrative advancements in less-invasive options to 'keep-the-lights-on' *must* outshine the cumbersome traditions of might-is-right.

Our Pacific Northwest 'Goonies' rallied upon enlightenment, "This is my/our time."

Without taking a purposeful stand, here in Oregon,

we abdicate stewardship of those assets we can never hope to replace in generations.

Solemnly — *if ever*:

But, for what exact generational gain?

OAR 345-022-0040 **is intended to protect** areas designated as 'Protected Areas,' such as Ladd Marsh, a State Wildlife refuge. There is ***no way Idaho Power can comply with this standard and mitigate or avoid significant adverse impacts*** to wildlife, rare plants and visual resources, if the B2H is permitted in this State Wildlife Management Area. Construction of roads and on-going operations, such as keeping the corridor clear of vegetation, are all ***land and wildlife disturbing activities***; and ***are not permitted in state recognized protected areas***.

'Wildlife disturbing activities;' such a sanitary phrase. Afterall, who subscribes to annihilation?

Therefore, ***EFSC must deny the site certificate.***

Respectfully, Cynthia T. Hickey

All Mail: P.O. Box 109, La Grande, OR 97850
Residence Only: 2212 Cove Ave., Apt. F-208, La Grande, OR 97850
Email: cynthia54h@gmail.com
Phone: 541-805-4806

Document: B2H HickeyC 08.14.19

TARDAEWETHER Kellen * ODOE

From: Ken or Marsha <ken_marsha@comcast.net>
Sent: Tuesday, August 20, 2019 7:11 AM
To: B2H DPOComments * ODOE
Subject: Power Line

To B2H officials:

We are very upset and worried about the establishment of a big power line close to our timber property, up the canyon southwest of

La Grande. We understand there is a troublesome noise factor, but mostly the danger of sparks from the big power lines. These sparks

can be deadly, as we found out from the Paradise, Calif. fire. We also understand that the lines really aren't needed and will be obsolete

in a few short years. However, if it were necessary for the lines, there is a better route, for safety, and for the ugliness that will be seen by

the town of La Grande. We aren't sure why they insist on going the route they are trying to insist upon.

Please listen to the people in La Grande, who are the ones who will suffer from this decision.

Yours truly,

Kenneth and Marsha Hildebrandt

Tax ID No. 03S38E1801300

Phone: 801-949-6901 or 541-570-3255

TARDAEWETHER Kellen * ODOE

From: Maxine Hines <maxsprite@hotmail.com>
Sent: Friday, August 16, 2019 9:44 PM
Subject: More opposition to B2H from La Grande

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019.

To the Oregon Energy Facilities Siting Council

My name is Maxine Hines and I am a long time La Grande resident. I have followed the B2H proposal for many years and have consistently been opposed to the overall plan and various routes proposed. I have been to presentations and they showed well but never convinced me it was needed nor good for Oregon, our community or Union County. I have supported our local representatives voicing opposition, financially supported the B2H coalition and so appreciate the work to bring to light many flaws in the proposal then and now.

Life is full and busy for most of us. The Council needs to understand how much time and energy has gone into trying to stop B2H, this is not just a NIMBY issue. There are many reasons beginning with the original assessed need. My first letter dealt with Idaho not doing way more to preserve and conserve resources and then wanting to spend so much running an unnecessary huge line thru pristine lands, people's land and farms and towns. It's just not ok, not needed, not openly presented and has changed legal requirements without due process.

I want to express my sincere appreciation to those on the Siting Council, it surely can't be much fun. Barry and I were on the Hanford Board together for many years and Hanley knows Union County well. We need to protect our water, land, roads, recreational resources and view and keep the construction and destruction from happening.

This project does not meet Oregon standards and must be rejected. Thank you and Oregon for allowing citizens input on such an important issue.

Maxine Hines
307 2nd Street
La Grande, Or. 97850 541 910-3522

TARDAEWETHER Kellen * ODOE

From: Maxine Hines <maxsprite@hotmail.com>
Sent: Monday, August 19, 2019 10:46 PM
Subject: B2H local issues

When we first came here, the area where the 1973 fire ran wild was still recuperating. Fire suppression will be seriously difficult and slow in the area proposed by the B2H line and the estimates for response are not realistic. The risk is too high to warrant this new, unneeded line.

The traffic, construction, noise, dust and sediment disturbance will impact local waterways. We already flood in several areas. Last year and in 2011, Mill Creek flooded and damaged my property at both 701 D and 307 2nd. If we have more distress from an Idaho business project, are they going to be responsible for tearing up floors, buckle wood floors, replacing gravel, chips and yard cleanup,,,,,,,,,,,,,I doubt it.

We have been fighting against this project for years. No way are we going to be able to "prove" they made things worse or get any kind of assistance or reimbursement for problems. Will they supplement our local fire services, repair road damage up Morgan Lake, down 2nd st or C??? Will our students be at risk with more trucks on local streets? Will the tranquility of Morgan Lake be gone for long periods of time?

It's hard enough when there are trucks on Morgan Lake Rd to avoid accidents, this will be way worse.

This is an old proposal that should have been dumped years ago. It is more outdated now, unneeded, and the limited new jobs will not compensate in any way the impacts on our area.....

Thank you for your serious consideration and listening to those of us who love this area and live our values. Conservation and renewables are the way to go for Idaho as well.

Maxine Hines 541 910-3522 307 2nd St. La Grande, Oregon 97850



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) JOE HORST

Mailing Address (mandatory) 86 HAWTHORNE DR.

Phone Number (optional) (541) 978-4500 Email Address (optional) _____

Today's Date: 6/20/2019

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony
(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

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1 comments about fire and environment and the viewsheds.
2 I have lived in this valley for 43 years. I've been a
3 business owner, I have raised a family. Two of those
4 businesses do involve tourism and serving local people.
5 Those people enjoy the benefits of Morgan Lake, the
6 wilderness area, Ladd Marsh, the Oregon Trail, the
7 scenic bikeways and scenic byways that crisscross this
8 area. These are all very important to our culture here.
9 And Glass Hill, Glass Hill is also something that we all
10 gaze upon and truly enjoy.
11 My comment is that I am opposed to
12 installation of this transmission line. My greatest
13 concern is the damage that the system would cause to the
14 viewshed or the countryside in which it travels through.
15 I would encourage you to look to other options. I know
16 that solar panels, batteries, and all these kinds of
17 options are now available.
18 But have you even thought to maybe aboveground
19 type conduit? Like within a house you can have conduit,
20 where you have transportation of your power, but it is
21 less visible. Yes, there would still be some issues,
22 but at least we wouldn't all have to look at it all the
23 time.
24 So rural areas are dependent upon tourism.
25 Tourism in 2014 was \$12.8 billion worth of the economy

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1 in Oregon. Certainly we have a portion of that.
2 Tourists do not travel to ponder the power grid. And
3 those of us who live in the rural area made a choice to
4 live here where the countryside is not marred by manmade
5 structures. Please do not ruin the viewshed for
6 eternity for your towers and lines.
7 Our future is the continued livability of the
8 place that we live, work, and play. Our future requires
9 that we maintain the viewshed that is not marred by
10 large unsightly towers and miles of wire.
11 So your plan is to plan for the future; our
12 plan is to protect our future.
13 Thank you.
14 HEARING OFFICER WEBSTER: Thank you.
15 MR. JOE HORST: Hello. My name is Joe Horst.
16 I live at 87 Hawthorne Drive. My house and property
17 sits right next to where their proposed tensioning
18 station lines are going to be. Because of where it is
19 we will be able to see at least a couple of the towers
20 from our property.
21 In 2002, I bought 135 acres right there. It's
22 up here on the hill, and the Oregon Trail -- there's two
23 reasons I bought it, and one was the view, it was really
24 good; the other one was the Oregon Trail came across it,
25 which really intrigued me. And I very shortly

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1 thereafter contacted the Oregon Trail Society. They
2 came and marked off the trail. So I've had this little
3 piece of heaven up there.
4 In 2014, my wife and I decided to build,
5 rebuild our house or we actually entertained the idea of
6 building on another piece of property, having 2 acres up
7 there and a lot of places we could build with a view, we
8 decided to go ahead and rebuild the house where it is,
9 not knowing what the future had in store. We could have
10 built the house on another section of property.
11 The first time that I was ever -- on May 5th
12 of 2016, I got a letter from Idaho Power about -- and
13 this is the first time I ever heard anything about this
14 project, ever. And it was a very short letter. It just
15 said that -- they put bold letters in the middle of the
16 letter, it said: "Permission to enter your property for
17 survey and information gathering does not constitute
18 your consent to grant a future easement."
19 So I didn't think too much about it, but there
20 was a name on there. I contacted a gentleman at Idaho
21 Power named Mike Takac for more information. And we
22 talked about it, and I said the Oregon Trail came across
23 my property and this and that. And he said, Well, I
24 guess we'll have to find another place to build the
25 line. He said, what he said was, We will have to find

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1 another route. So I didn't think anything about it, as
2 far as I know, it's a done deal.
3 On December 16, 2016, I received a second
4 letter with some maps, and it showed a -- they weren't
5 very detailed, they were pretty vague, and neither the
6 proposed route or the alternative route came near my
7 property on those maps. This letter was very short and
8 a bunch of legal jargon, but it had a questionnaire
9 which pertained to farming. I didn't fill it out or
10 anything.
11 Then the very next letter I received was on
12 May 12th of 2017, and the letter said it was contacting
13 landowners whose property may be crossed by this
14 project. At this time I was contacted by somebody from
15 Idaho Power. He was actually contracted to come talk to
16 me. And this is when he actually started talking to me
17 about the tensioning station. So I went ahead and sat
18 down and talked to him. And as it comes out, they want
19 to use the road coming up to our house, where it comes
20 right past our house, literally 20 feet from our front
21 door, 10 feet from our well, with big heavy trucks and
22 everything. And because of the tensioning station
23 building built, according to Idaho Power, could be as
24 many as 160 vehicles per day. That's what they said.
25 The other issue I have on that particular deal

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1 is the entrance, and they've talked about it a little
2 bit previously, where you come in off of Sunset onto
3 Modelaire and it splits to Hawthorne and Modelaire.
4 There is no sidewalks. It's the only entrance into the
5 place. There is a lot of bike traffic, a lot of kid
6 traffic, a lot of walking, people just walking up and
7 down that hill. And it's a potential hazard, big time.
8 Idaho Power has been very deceptive, and I've
9 had almost no contact with them whatsoever. I don't
10 know what to expect. All the information I'm getting is
11 just really meetings, and yet I'm going to have to sit
12 there. And it's getting close enough I'll hear the
13 buzzing. I'll see two towers. I see people walk up the
14 Oregon Trail all the time, and they'll have to sit there
15 and look at these huge towers as they are walking. It's
16 beautiful up through that little piece of property up
17 there.
18 I just found out about the blasting, which I
19 have a 565-foot well we put in when we did the house.
20 They are going to have to do some blasting there because
21 it's solid rock.
22 So it's just a potential hazard all the way
23 around, as far as -- I'm not going to gain -- I will
24 have no gain. Looking at these things, I'll have to
25 listen to them, and I don't gain anything from them. So

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1 I don't think it's -- I'm not really sure how they can
2 actually come and do that.
3 So anyway, so that was the third time I was
4 contacted was in 2017. Then I was actually -- somewhere
5 around the end of 2017, a gentleman with Idaho Power, I
6 believe his name was Jeff Maffuccio, or something like
7 that, came up to the property. We discussed a few
8 things. I voiced my concerns one more time with him.
9 Then we discussed -- we discussed about maybe put a road
10 in a different spot, the one up there. But I don't know
11 who is going to -- as far as I can tell, they will just
12 come in and just use the one in front of my house, and
13 there's nothing I can do about it.
14 I also live in the area, and a couple of
15 people have mentioned, about the '73 fire actually
16 burned where my house sits, right across that property.
17 So that's another concern of mine as well.
18 I don't think there has been any environmental
19 impact statement done on that particular route right
20 there either. They said something about there was one
21 done somewhere nearby, but I'm not sure how close that
22 was or anything.
23 But I'm just going to ask that you guys take
24 us into consideration. We have to live and deal with
25 this and with no gain on it. Especially from my

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1 perspective up there, like I said, Idaho Power has
2 contacted me a total of four times, and I really don't
3 know about what is going on or anything. I think they
4 should be a little more inclusive to people who are
5 going to be impacted by this.
6 So I want to thank you guys for listening, and
7 take some of these things into serious consideration in
8 making your decision.
9 Thank you very much.
10 HEARING OFFICER WEBSTER: Thank you.
11 MR. GAIL CARBIENER: I'm Gail Carbiener. I'm
12 from Bend, Oregon, but behind me are lots and lots of
13 friends. It's almost as if I live in this county I'm
14 over here so frequently. I represent the Oregon Trail.
15 That is a national organization whose job it is to do
16 what we can to protect and preserve the trail as well as
17 educate the public. I'm proud to say that our national
18 organization is a member of Stop B2H and has donated a
19 substantial amount of money to their effort to Stop B2H.
20 On Exhibit S, Historic Properties Management
21 Plan, at 7.2.3, which is the field crew definition, I
22 would like to add an expert from the Oregon Trail's
23 Association to be a member. There is many, many
24 instances in the documents presented for the Oregon
25 Trail where the Oregon Trail is misrepresented,

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1 sometimes not even on the maps and, therefore, you need
2 an expert, and there is none on that field crew. You
3 have got my specific recommendations in writing.
4 Also, I'm glad to hear that Kellen led off
5 tonight with information about fire. Last night she did
6 not. And I mentioned that Idaho Power's fire prevention
7 plan is not only weak, it is less specific than I think
8 you are requiring us to be. For example, Idaho Power
9 last night responded to the chairman's question about
10 have they submitted a draft fire prevention plan, and he
11 said that it will be submitted. That is my
12 recollection.
13 They not only submitted a draft fire
14 prevention plan, but it was forwarded to the Forest
15 Service and to the State Forestry fire prevention and
16 corrections, and suggestions were submitted. However,
17 in the draft project order, the fire prevention plan has
18 not changed. I suggest that they do that.
19 I recommended a couple of things in the fire
20 prevention plan: (1) cameras could be posted to cover
21 the area of the power line if, in fact, it is to be
22 built; (2) Idaho Power recommends that a watch person,
23 an individual watch person be present to report fires
24 during construction. My recommendation is that Idaho
25 Power provide a crew with a wildfire engine, Category 3,

~~Joe Horst~~

PUBLIC PARTICIPATION SLIDE-SHOWS HAVE BEEN INCLUDED IN THE NOTIFICATION OF THE THIS MEETING

I FEEL MY COMMENTS ARE NOT UNSUBSTANTIATED

NOTE: IP = Idaho Power ← HAS BEEN VERY DECEPTIVE AND VERY MINIMAL CONTACT AND STILL ~~AT~~ ALMOST NO UNDERSTANDING WITH WHAT WILL HAPPEN
My name is Joe Horst, My wife (Anna Cavinato) and I live at 86 Hawthorne Dr. The proposed line will be very near my house close enough to hear the buzzing. The traffic for the tensioning station and towers will pass right in front of my house. LITERALLY 20 FEET FROM MY FRONT DOOR 160 VEHICLES PER DAY WITHIN 10' OF MY SBS WELL
I purchased 135 acres in 2002. The Oregon trail came across this property, this with the view is why I purchased it. AT LEAST TWO TOWERS WILL BE POSSIBLE

I contacted the Oregon Trail society about 10 to 15 years ago and they came up and put markers on it

In 2014 my wife and I decided to build a new house or add to our existing house in a very major remodel. We had discussed and picked out a different section of the property to potentially build a new house.

We decided to just remodel our existing house which was over \$300,000. The project started in 2014, the plans were approved and work started in 2015.

On May 5th 2016, IP sent a letter to me about the B2H line. ~~THE VERY FIRST LETTER~~ This was the very first time I ever heard anything about B2H. The letter was short and in bold letters it said "Permission to enter your property for survey and information gathering does not in any constitute your consent to grant a future easement" INDICATING THAT SURVEYS & LOOKING AT THE ENVIRONMENT WHICH WAS NEVER DONE

I contacted IP and talked to "Mike Takac" for information. He did tell me that there was a potential of a route going near the property but when I discussed my concerns, he literally said "we will just have to use a different route".

I did not pursue this any further as I was under the impression there would be no further action on this.

On Dec 16th 2016, I received a second letter which include some maps. The maps were not detailed and impossible to decipher but the proposed route and the alternate route clearly did not come near my property.

The letter was again short and was mostly a bunch of legal jargon and had a questionnaire which I filled out and sent in.

The very next letter I received was May 12th 2017. This letter said it was contacting land owner whos property "May" be crossed by this project.

AGAIN
I contacted IP and had a sit down meeting with a representative that did not work for Idaho Power but was contracted by IP to meet with me.

This is when I found out that the route to install a couple of the towers and the tensioning station was going to use my road that literally passes 20 feet in front of my house. This is a private road and generally has little traffic except for when we have a function at our house AND 10 FEET FROM MY WELL.

I JUST FOUND OUT ABOUT THE BLASTING WHICH WILL BE DONE - THIS WILL BE DONE NEAR MY HOUSE & HOME & POTENTIALLY DAMAGE MY WELL

WITH NO GUARANTEE THEN WILL DO THIS

WITH THE TRANSFORMER STATION 160 VEHICLES PER DAY

We did discuss a new road put in away from the house But: My primary concern

I was very concerned with the traffic past my house, the Oregon Trail, and with the traffic at the entrance to our housing project which is a single entrance with absolutely no side walks, high bushes, 2 blind -90 degree corners with significant bike and foot traffic including kids going and coming from school. There has been to this date NO plan submitted on how this will be dealt with. The last time I looked Hawthorne DR was not even listed on the list of roads that would be impacted.

Sometime around the end of 2017 I was contacted by and talked to Jeff Maffuccio, he came up to the property and we discussed some things. I expressed my 3 primary concerns again. He said the road at the entrance of the housing project would be dealt with, even if they had to put in sidewalks or they would do the work during non school hours which does not reduce the traffic in that area.

We did discuss a new road put in as opposed to having all the traffic cross right in front of my house. That a new road would have to be put in on the bottom end of my property.

Sometime in early 2018 to mid 2018 (about a year ago) I received a phone call from Jeff. It was right after I commented at a B2H meeting here at the conference center. He told me at that time that it was not written in stone yet but IP was not going to be using the route proposed near my house. I have not heard anything since from IP but according to everything that I have seen recently, this was not the case.

We have been pretty much out of the loop on this process from the beginning. We were never made aware of the project until the middle of 2016 after we had already started on our house project. This did not give us time to research the project or have any input in the early days.

I AM ALSO IN AN AREA THAT WOULD BE SUSCEPTIBLE FOR A WILDFIRE - THE 1973 WILDFIRE PREVIOUSLY MENTIONED OCCURRED ACROSS MY PROPERTY. HOUSE SITS

I strongly feel that far more notice should have been given to me. Had we known we would likely have moved the house to a different location on the property.

TO SAY THAT THEY CAN BUILD THIS LINE WITHOUT IMPACT TO THE OREGON TRAIL IS REDICULOUS

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IF IDAHO POWER DOES NOT COMPLY WITH THE ROAD UPGRADES DUST DEBATEMENT OVER A BICYCLIST OR HEAVEN FOR BID RIDS WERENT DONE, WHO WILL ENFORCE THIS BECAUSE THE ROAD IMPROVEMENT-

WE WILL NOT BENEFIT AT ALL FROM THIS TRANSMISSION LINE YET WE WILL HAVE TO LOOK AT THEM & LISTEN TO THEM

R2HAPPDoc8-149 DPO Public Comment Horst

TARDAEWETHER Kellen * ODOE

From: Joe Horst <joehorst@eoni.com>
Sent: Monday, August 5, 2019 7:25 PM
To: B2H DPOComments * ODOE
Subject: B2H transmission line comment

Joseph G. Horst / Anna G. Cavinato

86 Hawthorne Dr.

La Grande, OR. 97850

Hm: (541) 963-4707 Joe/Anna

Wk: (541) 975-2000 Joe

Cell: (541) 975-4500 Joe

August 5th, 2019

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;

Dear Chair Beyeler and Members of the Council:

My name is Joe Horst, My wife (Anna Cavinato) and I live at 86 Hawthorne Dr., La Grande, OR. The proposed Boardman to Hemingway transmission line will be very near my house, close enough to hear the buzzing. The traffic for the tensioning station and towers will pass right in front of my house. According to Idaho Power's application, [Attachment U-2 Transportation and Traffic Plan](#), Table 6, on p. 17, there will be up to 620 light vehicle trips per day and up to 188 heavy construction vehicles per day during the construction. This is totally unacceptable for a residential neighborhood.

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On May 5th, 2016, Idaho Power sent a letter to me about the B2H line. This was the very first time I ever heard anything about the B2H project. The letter was short and in bold letters it said "Permission to enter your property for survey and information gathering does not in any constitute your consent to grant a future easement." If this line was proposed ten years earlier, why was this the first time I was informed?

I contacted Idaho Power and talked to "Mike Takac" for information. He did tell me that there was a potential of a route going near our property but when I discussed my concerns, he literally said "we will just have to use a different route". I did not pursue this any further as I was under the impression there would be no further action on this.

On Dec. 16th, 2016, I received a second letter which included some maps. The maps were not detailed and impossible to decipher but the proposed route and the alternate route clearly did not come near my property. The letter was again short and was mostly a bunch of legal jargon. It included a questionnaire which I did not fill out because I did not feel it pertained to me to the best of my knowledge.

The very next letter I received was May 12th, 2017. (Very near the completion of our house). This letter said it was contacting landowners whose property "May" be impacted by this project. I contacted Idaho Power and had a sit-down meeting with a representative that did not work for Idaho Power but was contracted by Idaho Power to meet with me.

This is the 1st time it was brought to my attention that there was a potential that the route to install a couple of the towers and the tensioning station could impact us and our property. This route was going to use my road that literally passes 20 feet in front of my house. It will also pass with-in 10 feet of a very expensive 565 ft. deep well I had drilled in 2002. This is a private road and generally has little traffic. There will be very heavy equipment using this road and I am very concerned about potential damage to this well.

I have also just learned that there could be some blasting to get through the rock on this hill side. I can see this being necessary as we had to deal with significant rock putting in our foundation on our new construction. This also raises issues with the impact on this hill side as well as the damage that my well could sustain.

I feel that the Council must impose conditions on the applicant in terms of noise, dust, traffic hazards, road deterioration, and most importantly, a large bond to replace my well if damages occur. Domestic wells should also be tested prior to traffic and/or nearby blasting to ensure that damage has not been caused by either of these potential hazards.

In 1973 a wildfire came through this property and literally wiped out the entire hillside including where our house currently sits. This is also another huge concern, not only for the potential of these lines creating a fire (as what happened in California last year) but also the potential for the construction to start one. I feel that the draft fire suppression plan is inadequate and moreover must be approved by all local fire and emergency management departments in Eastern Oregon, IN ADVANCE of the decision to issue a site certificate. There is probably no greater risk to public health and safety in our "dry communities" than wildfire! At a minimum, fire watch must be required during construction.

I am sure there are requirements of contacting landowners further ahead of time when a project like this can have such negative impacts and potential devastating consequences on a landowner. Had we known, in 2014 prior to building our house, that Idaho Power was considering putting these lines and tensioning station through here, we certainly would have built our house on the other section of this property we had considered prior to our project. I do not fault the county for this lack of notification because as I understand it, back in 2014, the Mill Creek route was not even being considered because it was too close to the city and residences.

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housing project would be dealt with, even if they had to put in sidewalks. He also said they would do the work during off school hours. This does not reduce the foot and bike traffic in that area. Bottom line is this will be a heavily impacted and dangerous area with absolutely no plan. I also feel that it is imperative a plan submitted and approved in advance of the EFSC/Council's decision as this will be a very difficult area to deal with.

I did discuss with Jeff Maffuccio about a new road put in along the front edge of my property that would be crucial to keep the traffic away from my house and well. (This does not address the issues of the entrance to the housing project). I specifically told him if the project was approved, there would be no other option which he agreed with. Since I had talked to Jeff at that time, the property right along this edge of my property was purchased by another individual that is in the process of having plans drawn up for a new house with-in a few feet of where this road would be constructed.

In late, 2018, I received a phone call from Jeff Maffuccio. It was right after I commented at a B2H meeting here in La Grande, at the conference center in October, 2018. He told me at that time that it was not written in stone, but Idaho Power was not going to be using the route proposed near my house. I have not heard anything from Idaho Power since that conversation. Information I have obtained recently indicates that It is still on the record as Idaho Power's preferred route. Many testified at the public hearing and I am spending time writing these public comments, because you are still evaluating this route. I feel this is basically a "bait and switch" maneuver by Idaho Power. They are trying to get me to acquiesce. Is there any standard to address this company's ethical behavior?

Idaho Power has been very evasive and kept me out of the loop on this process from the beginning. Including letters, phone conversations, and personal meetings, there have been a total of 6 interactions with Idaho Power and every single interaction with Idaho Power was to make me believe that I have nothing to worry about. Only the one sit down with Jeff Maffuccio indicated there was a remote possibility the line might take this route but a later conversation by him personally was to make believe this was not going to be the preferred route.

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There are many undetermined and unresolved safety issues, environmental issues (such as the impact on my well and house), and there has been a horrible lack of communication. Additionally, until significant changes are made in the overall plans of construction, access, safety, fire suppression, etc. I strongly feel that this project should not be approved.

I have not even addressed the impact that these towers will have on the Oregon Trail that runs the length of my property. Idaho Power must also cross the trail to access the construction and the maintenance of the towers and tensioning station.

BLM spent millions of dollars doing an EIS and recommended using federal land that is available as one of the proposed routes that would completely bypass our land. I am at a loss as to why Idaho Power feels it is necessary to use an alternate route that will have such a negative impact on many private landowners.

I truly believe that the EFSC cannot approve this project without requiring that these issues are addressed prior to approval. I feel very strongly these are very legitimate concerns. I will not open my property to Idaho Power until they are. This is MY property; I am prepared to hire attorneys needed to address these issues if this project is approved.

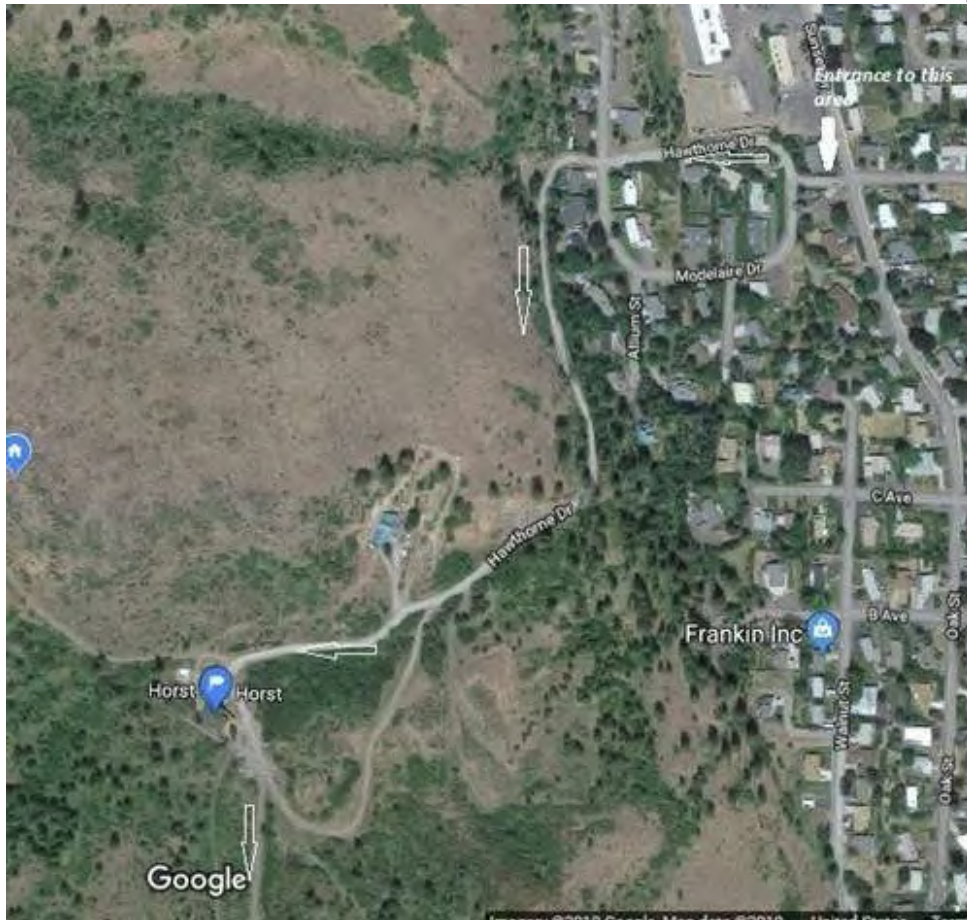
Sincerely



Joseph G. Horst

Note: This letter was also sent VIA postal service: 8/5/2019





Joe Horst
La Grande Auto Repair
1505 26th St. La Grande, OR. 97850
Phone: 541.975.2000
Fax: 541.975.2222



RECEIVED

AUG 08 2019

Department of Energy

Joseph G. Horst / Anna G. Cavinato

86 Hawthorne Dr.

La Grande, OR. 97850

Hm: (541) 963-4707 Joe/Anna

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RECEIVED

APR 10 1984

Idaho Power Company



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Sincerely



Joseph G. Horst

Note: This letter was also sent VIA email: 8/5/2019



TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

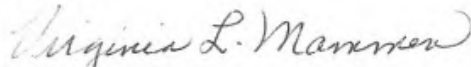
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

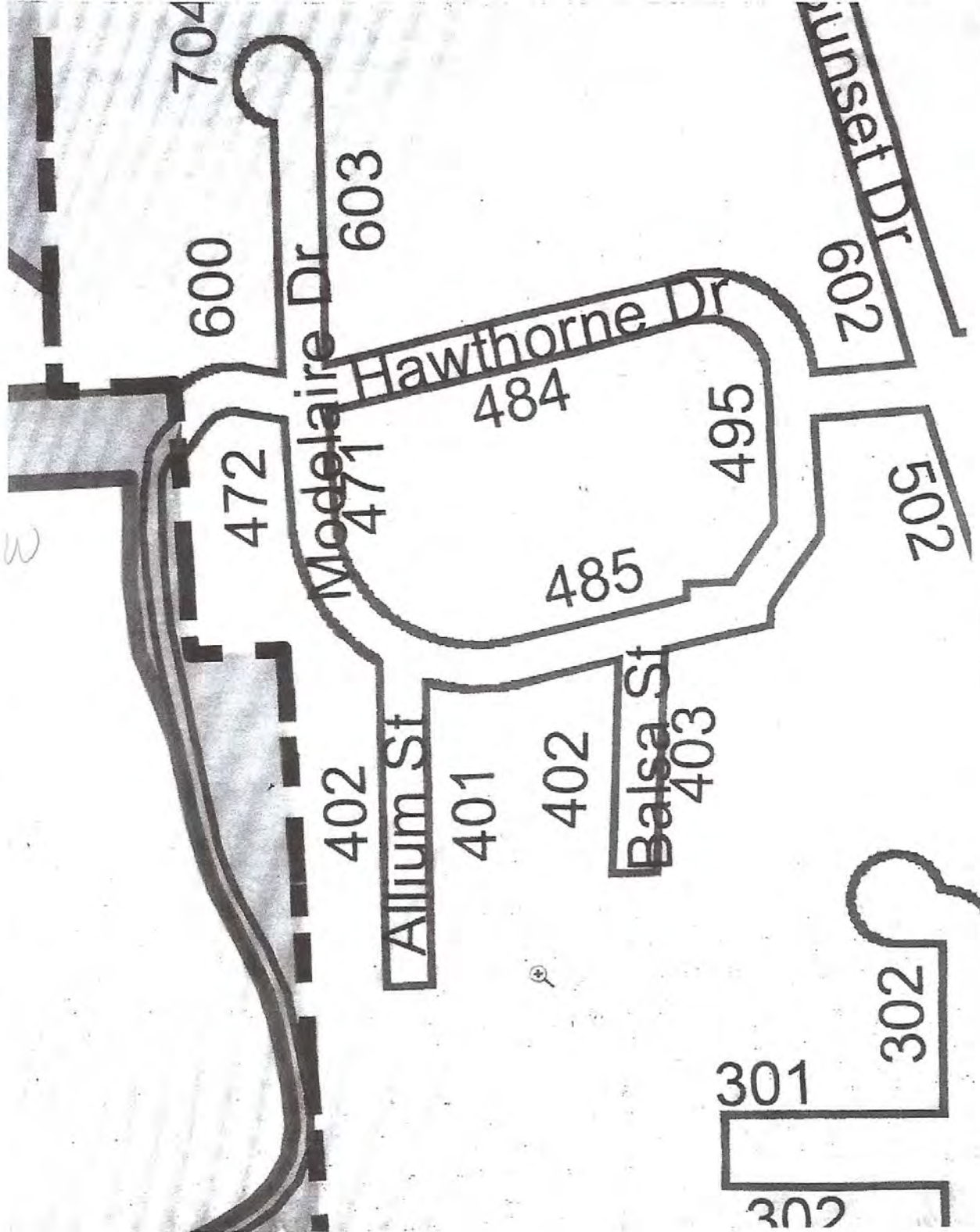


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



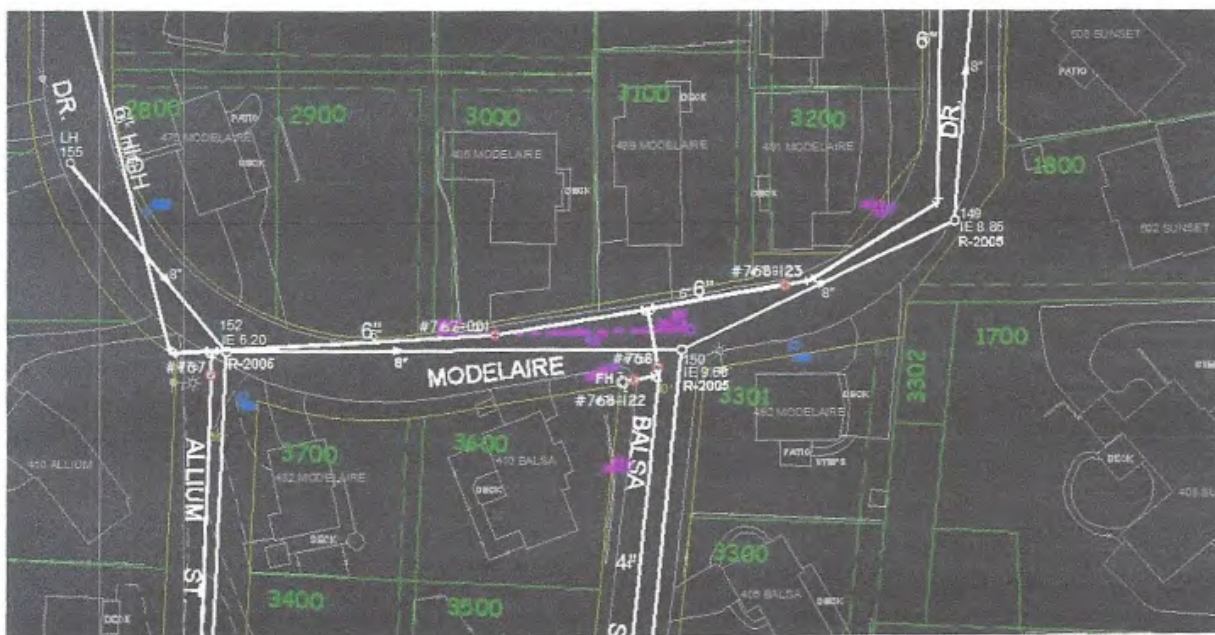
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

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Exhibit 8



Exhibit 9

attachment U2

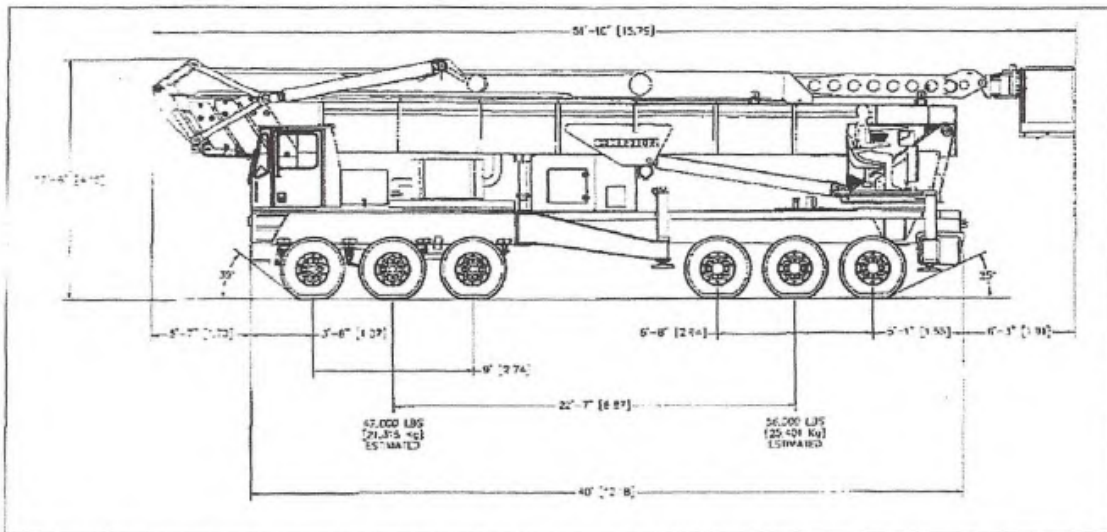


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-all, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Transportation and Traffic Plan

Boardman to Hemingway Transmission Line Project

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

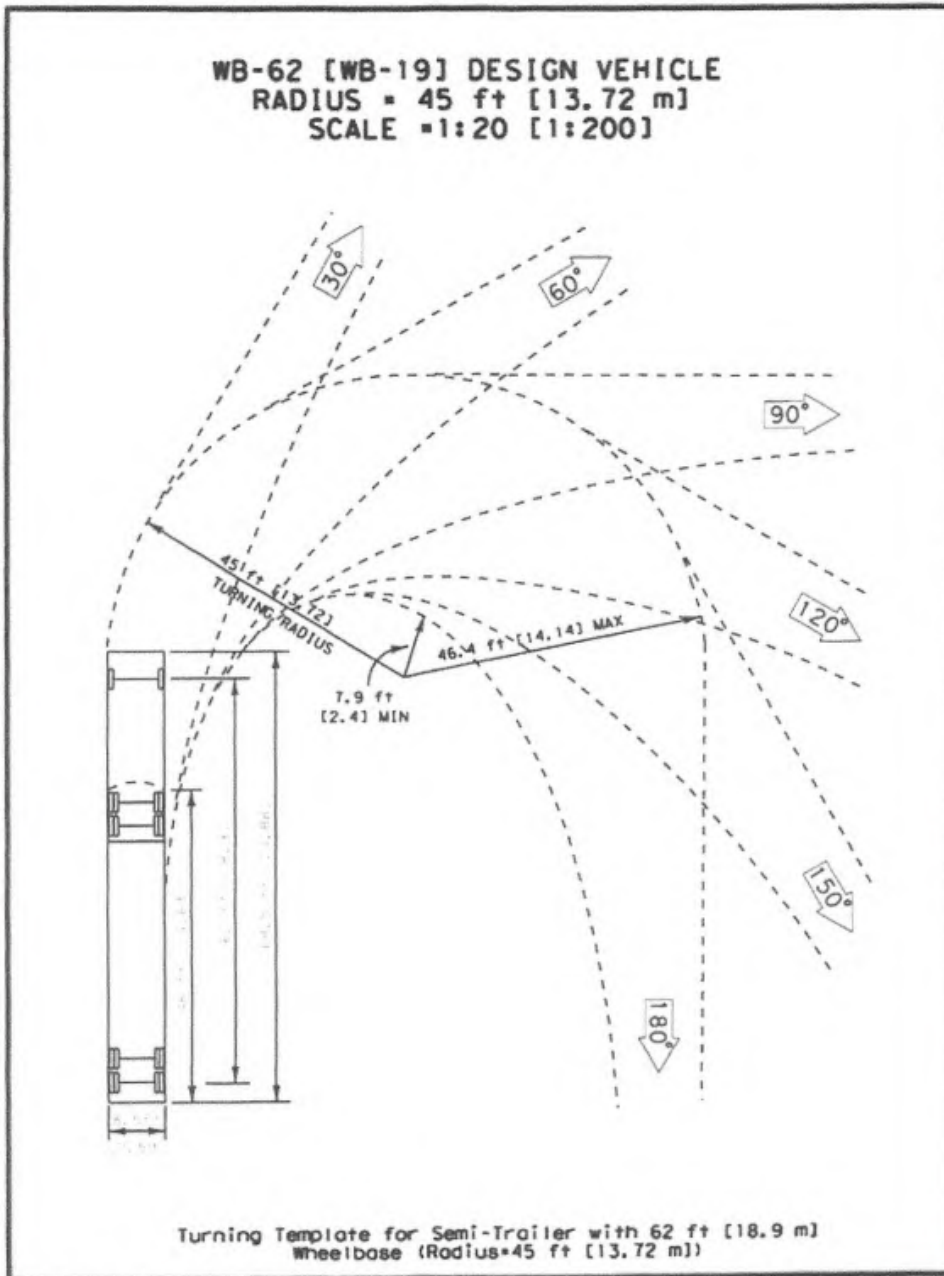


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

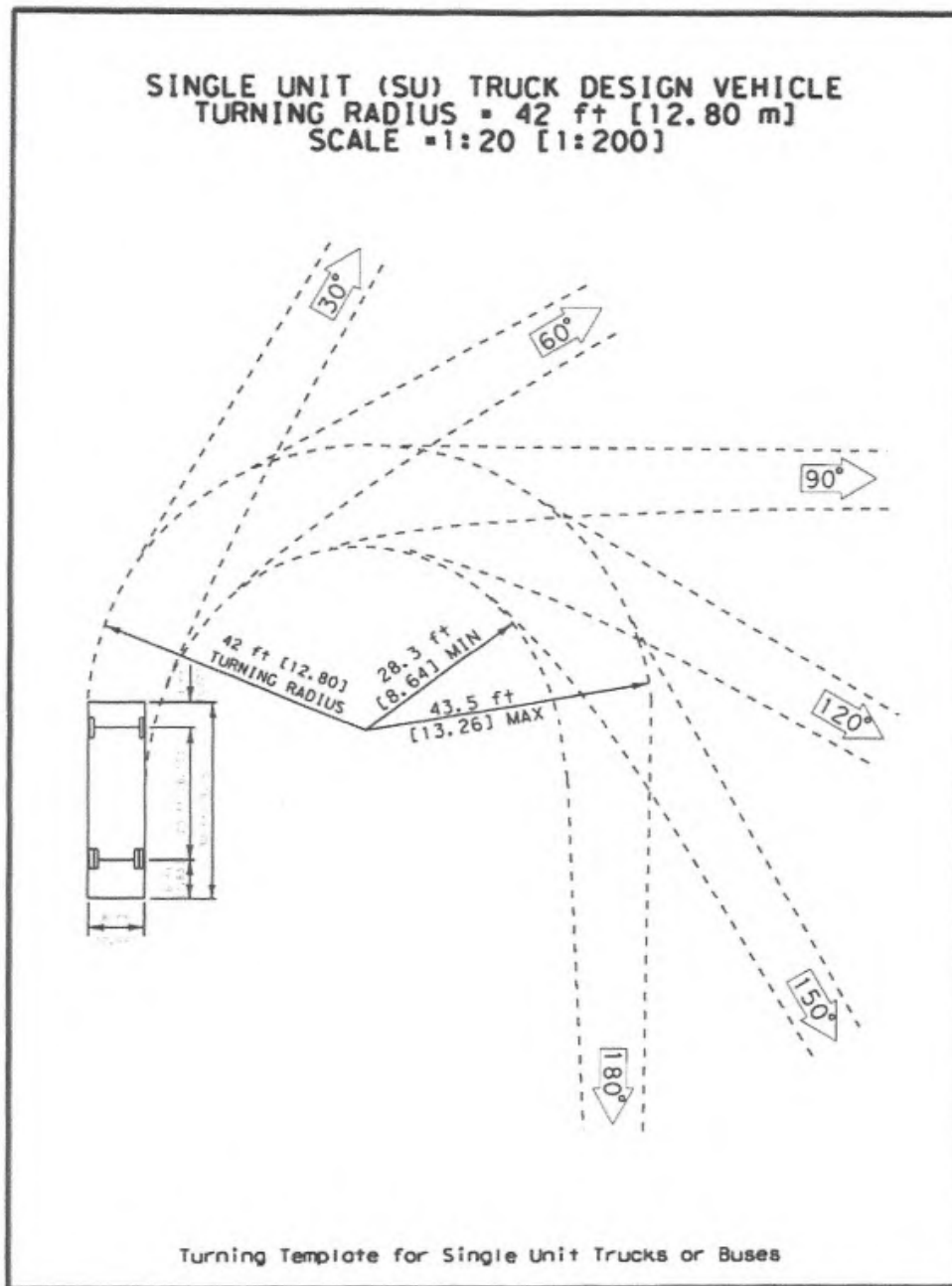


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

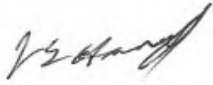
Section 17. TRUCK ROUTES

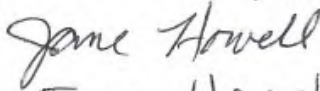
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

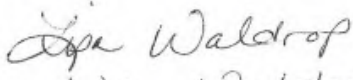
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

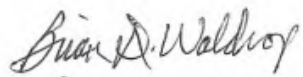
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

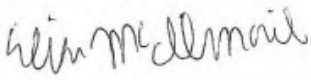
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME James E. Howell II
ADDRESS 482 Modelaire Dr
EMAIL j.howell2@frontier.com

SIGNATURE 
PRINTED NAME Jane Howell
ADDRESS 482 Modelaire DR
EMAIL d.janehowell@gmail.com

SIGNATURE 
PRINTED NAME Lisa Waldrop
ADDRESS 475 Modelaire Dr.
EMAIL ldjw62@gmail.com

SIGNATURE 
PRINTED NAME BRIAN D. WALDROP
ADDRESS 475 MODELAIRE DR.
EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRE DR.
EMAIL mcilmail154@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850
jessiehuxell@live.com

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

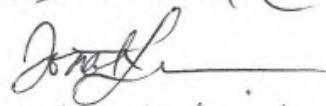

C. Huxell
472 Modelaire Dr. LG, OR 97850
CHRIS Huxell @ EMAIL.COM

SIGNATURE

PRINTED NAME

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EMAIL


Jonah Lindeman
702 Modelaire LaGrande
jlindeman@rpi.ag

SIGNATURE

PRINTED NAME

ADDRESS

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Marie Skinner
Marie Skinner
208 3rd LaGrande
marieskinner@hotmail.com

SIGNATURE

PRINTED NAME

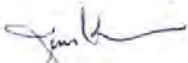
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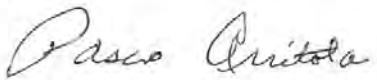
Blake Bars
Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

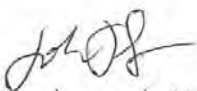
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SIGNATURE 
PRINTED NAME D. Dale Mammen
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EMAIL d mammen @ coni. com


SIGNATURE 
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La Grande, OR 97850
EMAIL jkreider@campblackdog.org

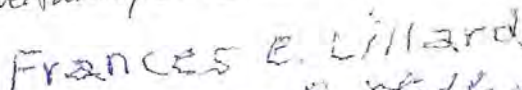
SIGNATURE 
PRINTED NAME Judie Arritola
ADDRESS 603 Modelaire La Grande OR
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SIGNATURE 
PRINTED NAME Pasco Arritola
ADDRESS 603 Modelaire La Grande, OR
EMAIL Pstola@charter.net


SIGNATURE 
PRINTED NAME John Bazuta
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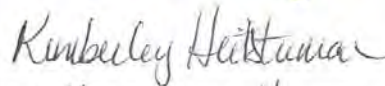
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SIGNATURE 
PRINTED NAME Andrea Galzow
ADDRESS 486 Hawthorne DR, La Grande
EMAIL foreverfamily33@aol.com


SIGNATURE 
PRINTED NAME Frances E. Lillard
ADDRESS 477 Madelaine Dr. L.G.
EMAIL

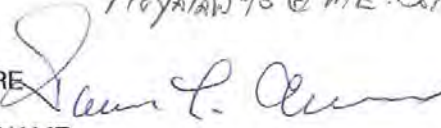
SIGNATURE 
PRINTED NAME Brent H. Smith
ADDRESS 410 Allium St
EMAIL smithbrent@gmail.com

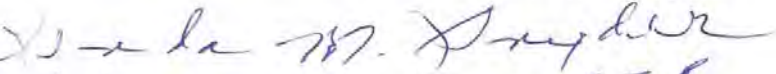
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

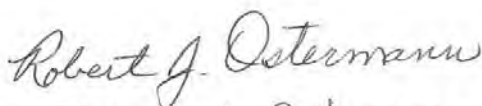
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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EMAIL kimheitstuman@hotmail.com


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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
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EMAIL Hoyakaw95@ME.com


SIGNATURE 
PRINTED NAME
ADDRESS Dennis L. ALLEN #41- 9637720
410 Balsa Street LaGrande, Oregon 97858
EMAIL N/A

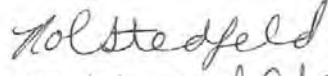
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire
EMAIL

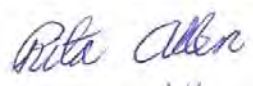
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

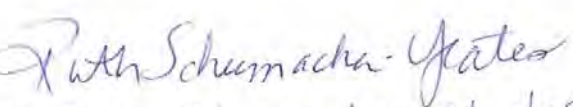
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ADDRESS 495 Modelaire Dr La Grande, OR 97850
EMAIL

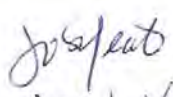
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SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Modelaire Dr
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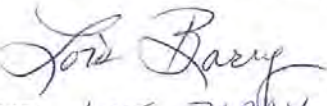
SIGNATURE 
PRINTED NAME Robin Stedfeld
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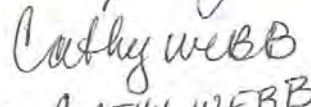
SIGNATURE 
PRINTED NAME Rita Allen
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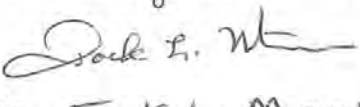
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
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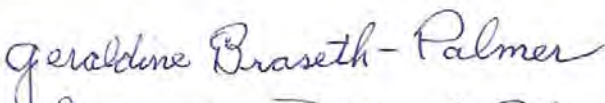

SIGNATURE 
PRINTED NAME JOHN YEATES
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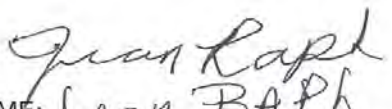
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SIGNATURE 
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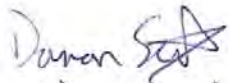
SIGNATURE 
PRINTED NAME CATHY WEBB
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EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
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EMAIL Buff Martin 27 @GMail .com

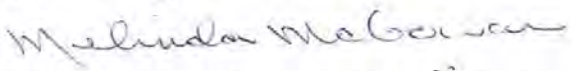
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
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SIGNATURE 
PRINTED NAME Jean RAPH
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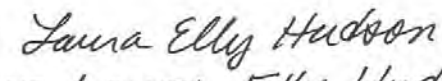
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SIGNATURE 
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SIGNATURE 
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SIGNATURE 
PRINTED NAME Laura Elly Hudson
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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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SIGNATURE *Anne G. Cavinato*
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EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
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SIGNATURE *Heather M. Null*
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EMAIL hnull@comi.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
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SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
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EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
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SIGNATURE *Robin L. Maille*
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SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
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EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

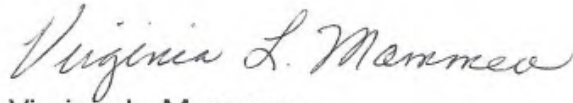
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

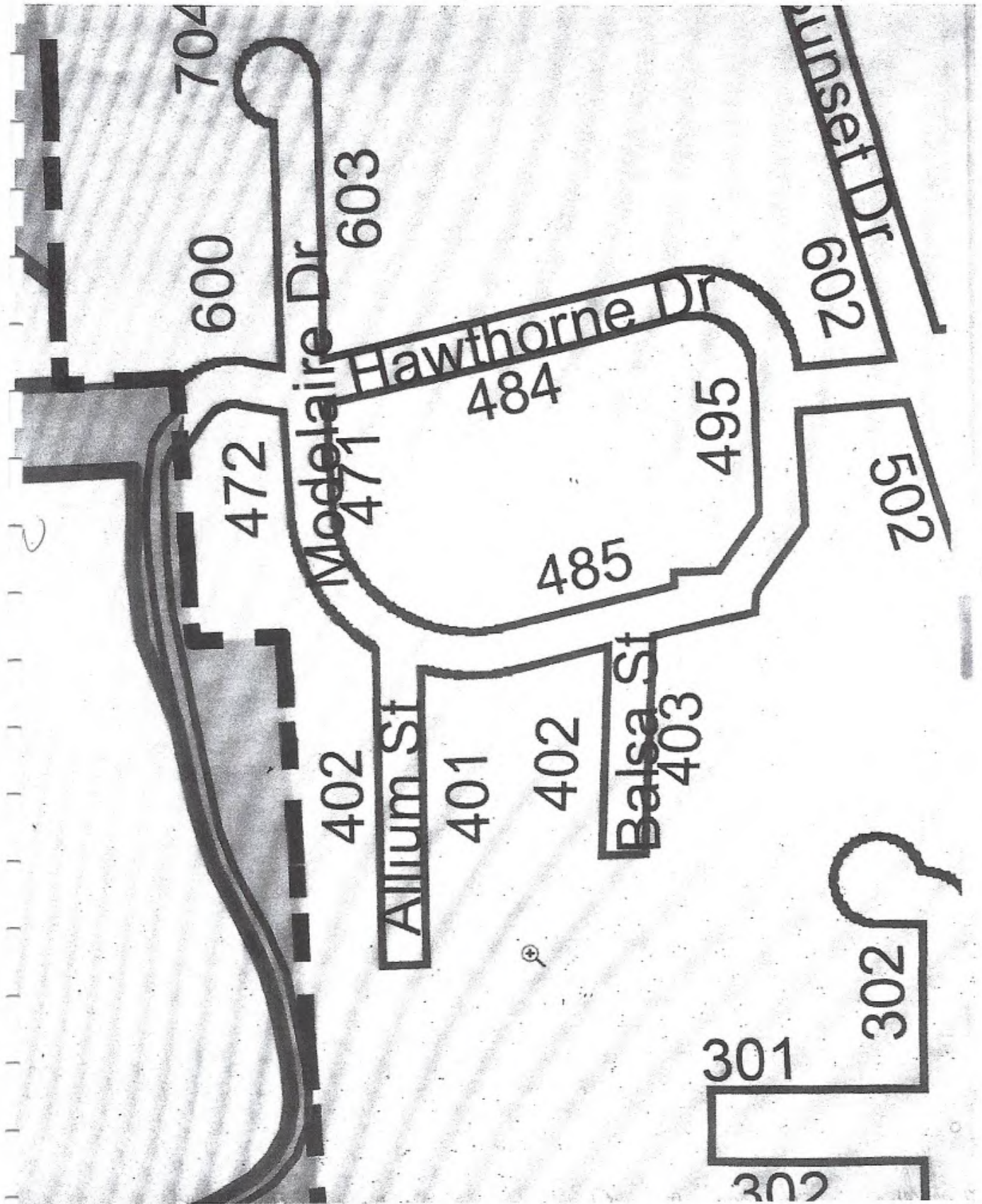


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



8/5/2019

Oregon Secretary of State Administrative Rules

Exhibit 4a

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

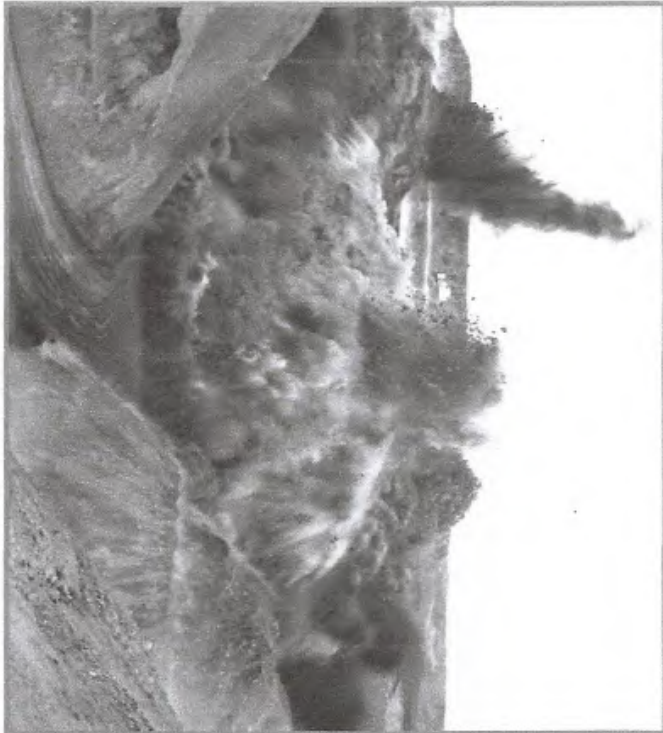
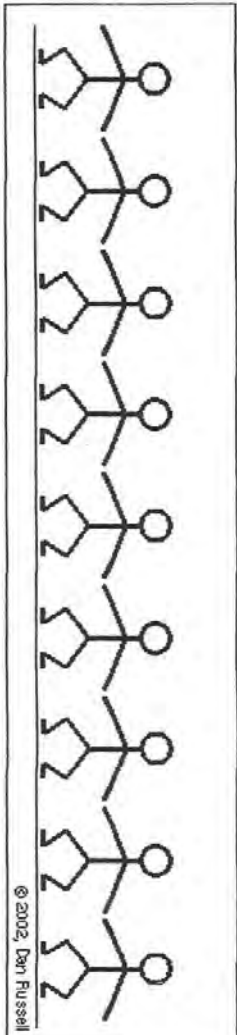


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.



Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

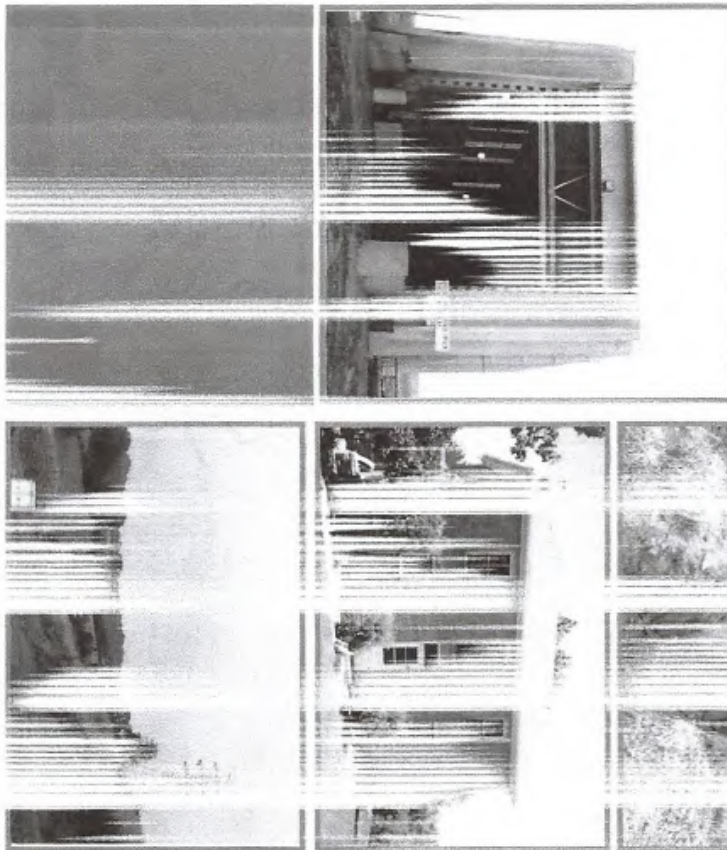
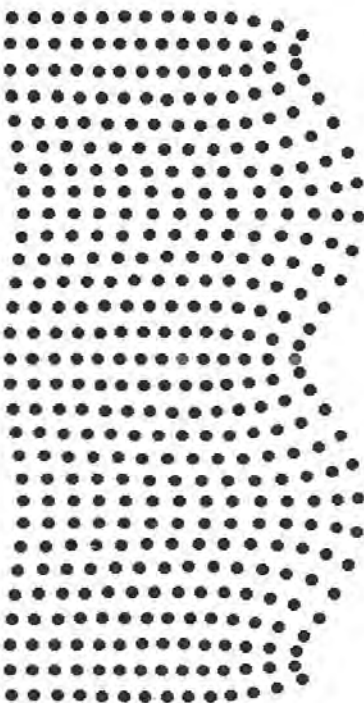


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

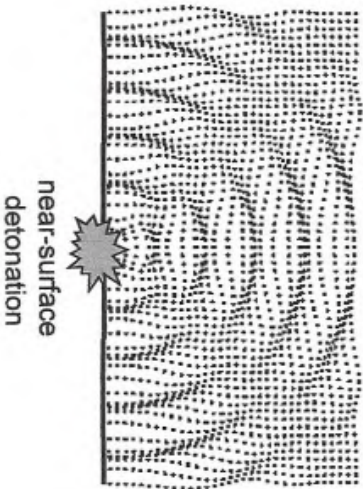
Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

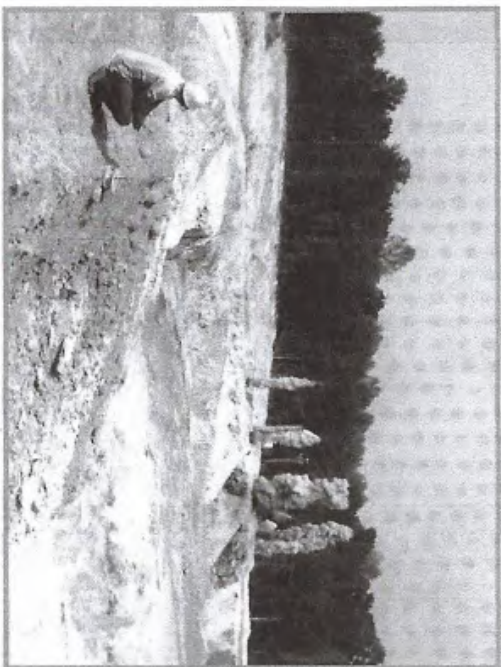
Exhibit 5 e
 Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

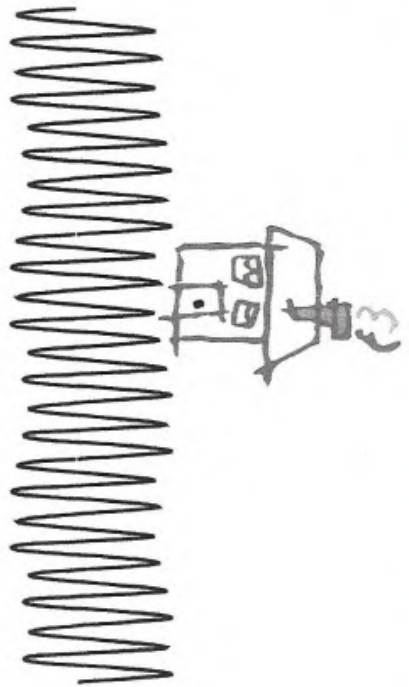
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

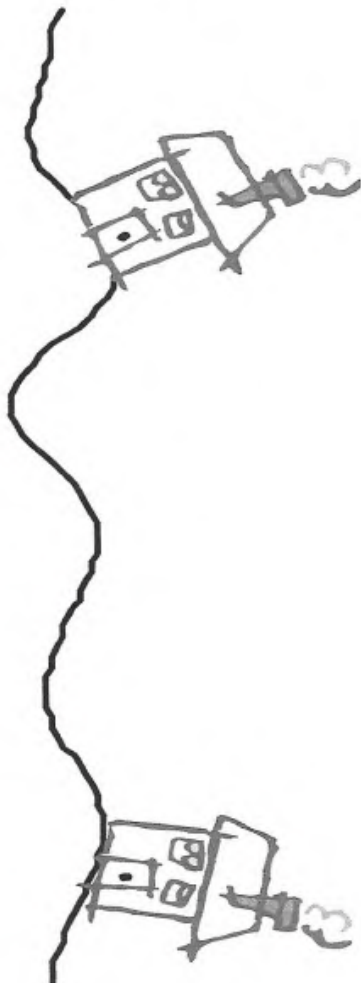


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

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A noisy problem - Harvard Health

Exhibit 16
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What can we help you find?



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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



Front Psychol. 2013; 4: 578.

PMCID: PMC3757288

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 1012

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)

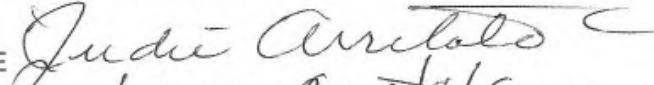


SCIENCE
NEWS


EXPERT
OPINION

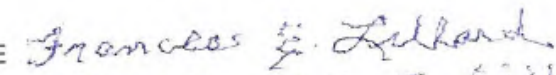
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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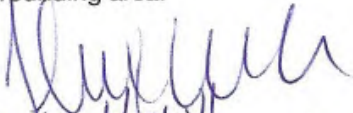
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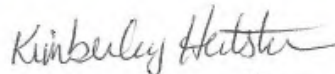
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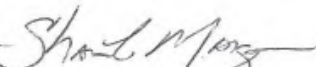
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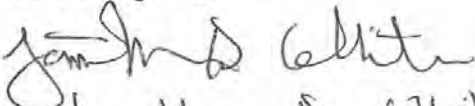
ADDRESS

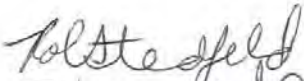
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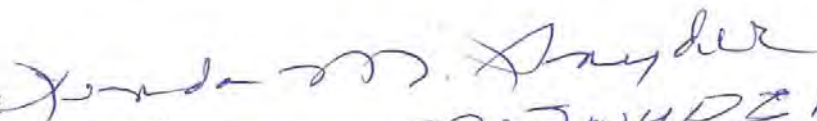
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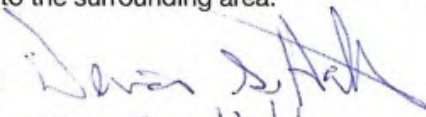
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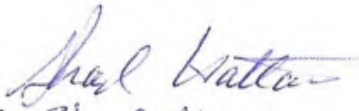
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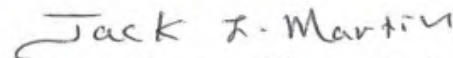
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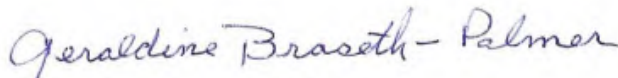
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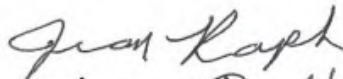
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Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Michael Horton (Joint Committee)

Mailing Address (mandatory) PO Box 1565
Wyss, OR 97813

Phone Number (optional) (541) 372-2268 Email Address (optional) _____

Today's Date: 6-18-19

Do you wish to make oral public testimony at this Hearing: Yes No _____

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony
(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Page 38	<p>1 because you don't get to respond to the decisions of the 2 Council directly. And the Department of Energy has made 3 it increasingly difficult for the public to access the 4 Energy Facility Siting Council members. 5 So you add to that the fact that there's no 6 reasonable time to review these proposed orders, and 7 you're talking about 600 pages in the draft proposed 8 order. These issues, and it's not the complete list, 9 came from 25 pages. I guess it was actually 24 pages of 10 that draft proposed order. So go figure. 11 Do I have any more time left? 12 HEARING OFFICER WEBSTER: You have 23 seconds. 13 MS. IRENE GILBERT: I was going to add a bunch 14 of other things. The developer has ignored things like 15 protected lands. There are three federal mitigation 16 sites at Ladd Marsh; they choose not to even mention 17 them. They ignore federal threatened and endangered 18 species protections. They will not provide any 19 protection of them. They don't honor the tribes and the 20 treaty agreements. 21 You've approved things as far as where the 22 views amount to someone floating on Wild and Scenic 23 River and looking up to energy development that's a mile 24 away, and seeing a bunch of turbines while you're on the 25 Wild and Scenic River.</p>	Page 40	<p>1 District. The Joint Committee manages the Owyhee Dam on 2 the Owyhee River along with two hydroelectric power 3 plants. One of the power plants is located at the base 4 of the Owyhee Dam and the other plant is located at the 5 head of the irrigation tunnel near the Owyhee Dam. 6 The Joint Committee operates and maintains a 7 69-kV transmission line which transmits power from the 8 Owyhee hydroelectric facilities to Idaho Power's power 9 grid system. The hydroelectric power plants were 10 partially funded by loans through the Department of 11 Energy. The 69-kV transmission line will be crossed by 12 the proposed 500-kV line somewhere to the east of 13 proposed milepost 256. 14 The Joint Committee requests additional 15 language be added to the draft proposed order to require 16 Department of Energy staff and irrigation districts' 17 staff be consulted on tower and line placements near the 18 intersections of the power lines and canals, tunnels, 19 and access roads. 20 The Joint Committee members share the same 21 concerns expressed tonight, that you've heard tonight on 22 the proposed placement on EFU lands. 23 Thank you. 24 HEARING OFFICER WEBSTER: Thank you. 25 Following Mr. Jordan we will have Jim Foss.</p>
Page 39	<p>1 As far as the placement of these, in Union 2 County, we have 80 percent on private land, we have 3 55 percent, federal land. So I could go on. I will go 4 on but not in this format. 5 So thank you for the time. You will get all 6 of the statutory references. 7 HEARING OFFICER WEBSTER: Thank you, 8 Ms. Gilbert. 9 MS. IRENE GILBERT: Thank you. 10 HEARING OFFICER WEBSTER: Before we hear from 11 Mr. Horton, the next one is Frank Jordan. 12 SECRETARY CORNETT: For the record, Council 13 Member Betty Roppe joined, so we do have a quorum at 14 this point in time. 15 HEARING OFFICER WEBSTER: Thank you. 16 Mr. Horton, if you want to start with your 17 name and address. 18 MR. MICHAEL HORTON: I'm Michael W. Horton. 19 My address is 106 Main Street, P.O. Box 1565, Nyssa, 20 Oregon 97913. I want to welcome Council to eastern 21 Oregon. 22 I'm secretary of the Joint Committee of the 23 Owyhee Project. The Joint Committee consists of 24 representatives from Owyhee Irrigation District, 25 Ridgeview Irrigation District, and Gem Irrigation</p>	Page 41	<p>1 Mr. Jordan, if you'd state your name and 2 address, please. 3 MR. FRANK JORDAN: My name is Frank Jordan. I 4 live at 3370 Old Stage Road in Westfall. 5 I own property west of Vale that the power 6 line will be crossing. And my main concern is the power 7 line is basically using our driveways as their access 8 roads. We have a home within one-eighth of a mile of 9 the power line. We have fields that it's crossing. An 10 irrigation pond within feet of where they propose to 11 cross. 12 And I have not been contacted at all by Idaho 13 Power to come out and look at where they are putting the 14 line. No one from Idaho Power has come out. No one 15 from Oregon Department of Energy has been on my property 16 to look where the line is going. I find this kind of 17 disturbing that Idaho Power or the Oregon Department of 18 Energy would basically put a line somewhere without 19 actually going out and talking to the landowners and 20 seeing exactly where the line is proposed. That's my 21 only comment. 22 Thank you. 23 HEARING OFFICER WEBSTER: Thank you. 24 After we hear from Mr. Foss, will be followed 25 by Arnold Tropf.</p>

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August 13, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR 97301

RE: Idaho Power Proposed Boardman to Hemingway Transmission Line

Dear Kellen:

I am the Secretary of the Joint Committee of the Owyhee Project. I made verbal comments on the proposed transmission line at the Public Hearing on June 18, 2018, in Ontario, Oregon. The Joint Committee consists of elected representatives from Owyhee Irrigation District, Ridgeview Irrigation District, Gem Irrigation District. The Joint Committee manages the Owyhee Dam on the Owyhee River, along with two hydroelectric power plants. One of the power plants is located at the base of the Owyhee Dam and the other power plant is located at the head of the irrigation tunnel near the Owyhee Dam.

The Joint Committee operates and maintains a 69-KV transmission line which transmits power from the Owyhee hydroelectric facilities to Idaho Power's proposed grid system. The hydroelectric power plants were partially funded by loans through the Department of Energy. The 69-KV transmission line will be crossed by the proposed 500-KV line somewhere to the east of proposed mile post 256.

During the hearing, the Idaho Power representative stated that the proposed line placement was going in this area due to the fact that BLM in its final Environmental Impact Statement determined that this route was preferred over the alternative Malheur "S" route which was identified in the final EIS, but not chosen as the preferred route. The Malheur "S" alternative, however, was not completely eliminated as a possible alternative route in the EIS.

As the Energy Facility Siting Council heard at the Public Hearing in Ontario on June 18, the proposed crossing of the Owyhee River in this area has a substantial negative impact on not only the irrigation districts, but also the private property landowners in that area.

Kellen Tardaewether, Senior Siting Analyst
August 13, 2019
Page 2

The Joint Committee of the Owyhee Project urges the Council to consider the Malheur "S" alternative identified on Map 2-7e in the final EIS. A copy of the map is attached. Another one of the preferred routes for the Joint Committee is the Malheur "A" alternative, which is also shown on the attached map.

Both the Malheur "S" and Malheur "A" alternative routes are located along the edges of (within or closely parallel to) a west-wide energy corridor, within which is an existing 500-KV transmission line.

The proposed route near the Owyhee River creates potential problems with Bureau of Reclamation and Irrigation District facilities that the alternatives South and Malheur A Alternative do not. The topography of the land east of the Owyhee River where the proposed route is to cross the Owyhee River is highly unstable. The construction and location of the proposed power line in that area could cause catastrophic loss of the Kingman Lateral resulting in possible flooding and damage to the proposed power line itself. The lateral has slid off of the mountain in this area before. If the power line were to be constructed in this area, substantial mitigation, including the possible piping of the Kingman Lateral would be required. This area also includes an access road to the North Canal of the Owyhee Project and the Kingman Lateral. This is an area of high activity for personnel and heavy equipment. The placement of the power line in this area will put not only the heavy equipment and personnel at risk, but also the power line.

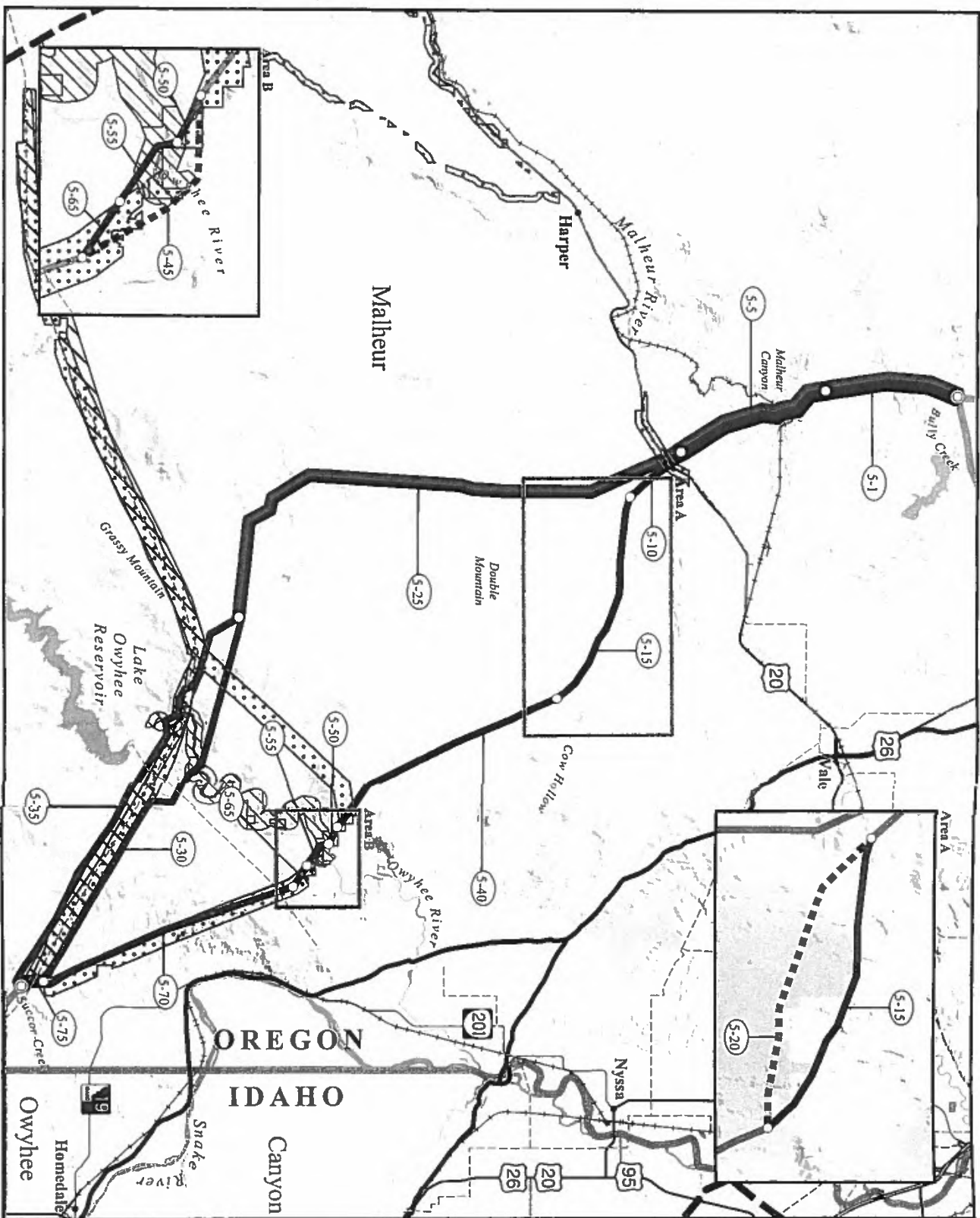
The proposed route also creates additional crossings of the South Canal which the alternatives South and Malheur A alternative do not. These additional crossings are in areas of substantial activity in operating and maintaining the South Canal of the Owyhee Project. One of these additional crossings of the proposed power line over the South Canal is over a shallow siphon of the South Canal. This siphon is an underground concrete structure. Construction of the power line may put the integrity of that structure at risk.

Very truly yours,



Michael W. Horton

MWH/kg



Map 27e
 Segment 5
 Malheur

BOARDMAN TO HEMINGWAY
 TRANSMISSION LINE PROJECT

Alternative Routes^{1,2}

- Malheur A Alternative
- Applicant's Proposed Action Alternative
- Malheur S Alternative

Variations

- AREA A
- Variation S5-A1
- Variation S5-A2
- AREA B
- Variation S5-B1
- Variation S5-B2

Project Features

- ▭ Project Area Boundary
- Link Node
- Segment Node

Land Ownership

- ▭ Bureau of Land Management
- ▭ State Land
- ▭ Bureau of Reclamation
- ▭ Private Land

General Reference

- City or Town
- ▭ Resource Management Plan Utility Corridor
- ▭ West-wide Energy Corridor
- ▭ Wild and Scenic River- Determined Suitable
- ▭ 230-kV Transmission Line
- ▭ 69- to 115-kV Transmission Line
- ▭ Oregon National Historic Trail Congratulatory Designated Alignment
- ▭ U.S. Highway
- ▭ State Highway
- ▭ Lake or Reservoir
- ▭ State Boundary
- ▭ County Boundary
- ▭ Oregon National Historic Trail Congratulatory Designated Alignment

SOURCES

and Jurisdiction, BLM 2014, 2015; Cites and Towns, ESR 2013; Resource Management Plan Utility Corridor, BLM 2015; West-wide Energy Corridor, Argonne National Laboratory 2008; WRA and Scenic Rivers - Determined Suitable, BLM 2015; Transmission Line, Ventry 2012; Logan Simpson Design 2011; Bonneville Power Administration 2009, Bonneville Power Administration 2007; 230-kV Transmission Line, Idaho DOI 2008; Oregon DOI 2007; Oregon National Historic Trail Congratulatory Designated Alignment, BLM 2013; Oregon National Historic Trail Congratulatory Designated Alignment, BLM 2013

NOTES

Alternative routes are depicted graphically on map and, in most cases, where constructive alternatives exist, but not where variations, are shown within the overall geographic context. The alternative routes shown on this map are draft and may be revised or refined throughout the development of the project. The B2H Project area boundary is defined by buffering the alternative route centerlines by 100 feet. The B2H Project area boundary may vary slightly from the boundary of the Energy Resource Management Plan, Department of Agriculture (except U.S. Forest Service), Federal Energy Regulatory Commission, or U.S. Department of Agriculture (except U.S. Forest Service). Each alternative route is composed of links, which are discrete sections of the route sharing common endpoints determined by the point of intersection with other adjacent links. The common endpoint is referred to as a link node. The segment is the section of route between two link nodes. The segment is referred to as a segment node. No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregation with other data. Original data were obtained from the Bureau of Land Management and are subject to change without notice. Alternative routes last revised: February 18, 2016. Final EIS November 2016



TARDAEWETHER Kellen * ODOE

From: Angelina Howell <ahowell@wsgeovisions.com>
Sent: Wednesday, May 29, 2019 9:34 AM
To: B2H DPOComments * ODOE
Subject: Seeking Contact for Environmental Compliance Info on Boardman to Hemingway Transmission Line

Hello,

I am writing in response to a letter received by the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO) regarding public comments on the B2H transmission line. I am Director of a tribal-owned environmental compliance firm and am looking for points of contact at ODP who are involved with the compliance side of this project.

I left a voicemail for Kellen Tardaewether this morning with this message. If you could direct my inquiry to the most appropriate person, I would greatly appreciate it.

Best regards,
Angelina

--

Angelina Howell, M.A., R.P.A.
Director, Warm Springs Geo Visions
ahowell@wsgeovisions.com
(503) 933-2665

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

August 18, 2019

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project; Draft Proposed Order May 23, 2019

Dear Chair Beyeler and Members of the Council:

In the application for the Boardman to Hemingway transmission line to the ODOE; THE APPLICANT IS IN VIOLATION OF ORDINANCE OAR 345-001-0010(55)- THE MAPPING OF THE B2H PROJECT IN LA GRANDE

In Exhibit C on page 4 Section 2. 2 Second Amended Project Order Provisions

The Second Amended Project Order includes the following discussion regarding Exhibit C: Maps shall indicate the "site boundary" as defined in OAR 345-001-0010(55). Maps shall provide enough information for property owners potentially affected by the facility to determine whether their property is within or adjacent to the site boundary. Major roads shall be named. IPC shall include maps drawn to a scale of 1 inch = 2,000 feet or smaller when necessary to show detail. The Department requests that IPC share GIS data for the proposed facility in a format that is compatible with current Department software programs; accurate GIS data will help streamline the application review process for the Department and reviewing agencies.

Maps shall clearly show the boundaries of the proposed corridor within which the transmission line would be constructed, and shall include familiar landmarks such as roads and existing power lines that reviewing agencies and affected landowners may use to identify the proposed route. Aerial photographs with all roads identified are helpful for public interpretation and review. The site boundaries of all proposed related or supporting facilities, including but not limited to access roads, temporary laydown areas, switching stations/substations, must also be identified. Maps showing access roads included as related or supporting facilities shall clearly depict where existing roads or road segments are proposed to be in the site boundary. Also, clearly identify the county and city jurisdictions in which facility components are proposed to be located. All county and city jurisdictions in which facility components are proposed to be located are appointed as SAGs by EFSC.

Idaho Power states that attachment C-2 contains a map-set organized by county that includes a series of detailed maps that are at a scale of 1 inch equals 1,000 feet. Project features shown include the Site Boundary, access roads, stations, communication station sites, and communication distribution lines within the Idaho Power Company (IPC) service area. Temporary project features are also shown, including structure work areas, multi-use areas, pulling and tensioning sites, and light-duty fly yards. (See attachment 1: Copy of pages (C4 & 5)

However, near La Grande the maps provided by Idaho Power do not show access roads to or from Multiple Use Areas and Pulling and Tensioning Sites. The maps provided in the application in C-2 do *not* clearly depict existing roads or road segments. Therefore the B2H application maps lack the detail that is required by the state of Oregon because the maps do not show the names of the streets. Without detailed maps property owners cannot tell how they will be directly affected by this project.

Our home is on Modelaire Drive and Modelaire Drive is listed as the main access road for La Grande. We also live within 294 feet from the site boundary for the Pulling and Tensioning Site. We have never received any correspondence from Idaho Power (this may be a violation of OAR 345-021-0010(1)(x)(E)) and our names do not appear on any of the lists that Idaho Power has provided in their application. The only information that we have to reference are the faulty maps in Idaho Powers application.

The application also states that “impacts from temporary road closures and construction activities are not anticipated to affect local communities because Project activities involving short-term road closures will occur in remote areas, away from housing and other developments”(U3.1.5 P25). This statement is not true in La Grande. The Google Maps (Attachment 2) clearly shows that the proposed B2H construction will be happening on our surface roads in multiple neighborhoods in La Grande.

The B2H project will be devastating to us and our neighborhood. We have already seen our property devalued. Our roads are nearly fifty years old and they were not built to carry the industrial size equipment to build the power transmission lines or the logging trucks that the roads will be used for. This proposed project will have a major impact on our lives as our neighborhood is mostly people over 65 or young families. The maps do not provide enough details for property owners to see that there are other roads in other neighborhoods that will be used to put in the transmission towers in the south hills.

The application states that “Surface streets within the city of La Grande may need to be used during construction to access portions of the project” (U2 P8). Nowhere in the application are the streets listed that may be used in La Grande. The roads listed for Union County in Table 7, Preliminary Routes (U2 P18) lists Foothill Road and city of La Grande surface Streets. The application omits that from the proposed Multiple Use Area near Foothill you would need to travel on Gekeler, Sunset, Modelaire, and Hawthorne to get to Idaho Power’s proposed Transmission Line access road in La Grande.

The application also forgot to mention that you cannot get to Modelaire without traveling on Sunset Drive which houses the Grande Ronde Hospital, La Grande High School, Central Elementary and Community Sports Complex .The Modelaire access road is also next to the Grande Ronde Hospital’s Heliport. Gekeler houses a park, two retirement complexes and seven churches. All emergency responders also use the route from Gekeler to Sunset to get to the hospital. None of this information can be gleaned from the maps or the verbiage that Idaho Power has supplied in their application because the names of the streets have been omitted from this application.

Idaho Power states that “Project traffic generated during construction is not anticipated to cause notable congestion or otherwise impact local communities” (U2 P20). Given that the application states that

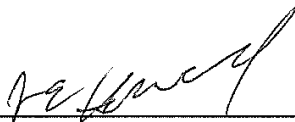
“Construction of the new transmission line is anticipated to last at least 36 months, with multiple construction crews working simultaneously (U2 3.1.1.1) and that construction will generally occur between 7 a.m. and 7 p.m., Monday through Saturday (U2 page 16) it is impossible to believe that there will not be “notable congestion” within the neighborhoods in the South and East hills of La Grande.

Idaho Power’s application for the Boardman to Hemingway Power Transmission line contains multiple and obvious inaccuracies. Idaho Power did not provide aerial photographs with all roads identified to help the public interpret and review their application. Nor did they provide maps showing access roads that clearly depict existing roads so that the general public could determine how this project would affect them personally. The application has also omitted the names of the roads that will be used in La Grande.

Summary: La Grande maps lack the details required by the state of Oregon to meet ordinance OAR 345-001-0010(55). (See attachment 2: Maps from exhibit C-2 and Google maps that show more detail)

Therefore the Oregon Department of Energy Siting Council needs to deny Idaho Power’s application for the B2H transmission project due to the fact that the application violates OAR 345-001-0010(55).

Sincerely,



Signature

482 Modelaire Dr. La Grande OR 97850

Address

Jim Howell

Printed Name

jimhowell2@frontier.com

Email

In the application for the Boardman to Hemingway transmission line to the ODOE

THE APPLICANT IS IN VIOLATION OF ORDINANCE OAR 345-001-0010(55)
THE MAPPING OF THE B2H PROJECT IN LA GRANDE

Attachment One

Pages C4 and C5

Jane and Jim Howell

2.0 APPLICABLE RULES AND SECOND AMENDED PROJECT ORDER PROVISIONS

2.1 Site Certificate Application Requirements

Oregon Administrative Rule (OAR) 345-021-0010(1)(c) provides that Exhibit C must include:

(A) A map or maps showing the proposed locations of the energy facility site, all related or supporting facility sites and all areas that might be temporarily disturbed during construction of the facility in relation to major roads, water bodies, cities and towns, important landmarks and topographic features, using a scale of 1 inch = 2000 feet or smaller when necessary to show detail.

(B) A description of the location of the proposed energy facility site, the proposed site of each related or supporting facility and areas of temporary disturbance, including the total land area (in acres) within the proposed site boundary, the total area of permanent disturbance, and the total area of temporary disturbance. If a proposed pipeline or transmission line is to follow an existing road, pipeline or transmission line, the applicant shall state to which side of the existing road, pipeline or transmission line the proposed facility will run, to the extent this is known.

(C) For energy generation facilities, a map showing the approximate locations of any other energy generation facilities that are known to the applicant to be permitted at the state or local level within the study area as defined in OAR 345-001-0010 for impacts to public services.¹

2.2 Second Amended Project Order Provisions

The Second Amended Project Order includes the following discussion regarding Exhibit C:

Maps shall indicate the "site boundary" as defined in OAR 345-001-0010(55). Maps shall provide enough information for property owners potentially affected by the facility to determine whether their property is within or adjacent to the site boundary. Major roads shall be named. IPC shall include maps drawn to a scale of 1 inch = 2,000 feet or smaller when necessary to show detail. The Department requests that IPC share GIS data for the proposed facility in a format that is compatible with current Department software programs; accurate GIS data will help streamline the application review process for the Department and reviewing agencies.

Maps shall clearly show the boundaries of the proposed corridor within which the transmission line would be constructed, and shall include familiar landmarks such as roads and existing power lines that reviewing agencies and affected landowners may use to identify the proposed route. Aerial photographs with all roads identified are helpful for public interpretation and review. The site boundaries of all proposed related or supporting facilities, including but not limited to access roads, temporary laydown areas, switching stations/substations, must also be identified. Maps showing access roads included as related or supporting facilities shall clearly depict where existing roads or road segments are proposed to be in the site boundary. Also, clearly identify the county and city jurisdictions in which facility components are proposed to be located. All county and city jurisdictions in which facility components are proposed to be located are appointed as SAGs by EFSC.

¹ The Project does not include an energy generation facility, and therefore, OAR 345-021-0010(1)(c) is not applicable to the Project.

Exhibit C shall contain a table listing the approximate land areas for both temporary disturbance associated with construction and permanent footprint of structures associated with facility operation for each type of disturbance or structure. This information needs to be consistent with information provided in other exhibits.

(Second Amended Project Order, Section III(c)).

3.0 ANALYSIS

3.1 Maps Showing the Proposed Locations

OAR 345-021-0010(1)(c): Exhibit C: Information about the location of the proposed facility, including: (A) A map or maps showing the proposed locations of the energy facility site, all related or supporting facility sites and all areas that might be temporarily disturbed during construction of the facility in relation to major roads, water bodies, cities and towns, important landmarks and topographic features, using a scale of 1 inch = 2000 feet or smaller when necessary to show detail.

The location of the Proposed Route, alternative routes, the related or supporting facilities, and the areas that might be temporarily disturbed during the construction of the facilities are provided in Attachment C-1, Attachment C-2, and Attachment C-3 as follows.

- Attachment C-1 provides a map showing the location of the Longhorn Station. The scale of the map is 1 inch equals 1,000 feet.
- Attachment C-2 contains a map-set organized by county proceeding north to south showing the location of the Proposed Route. Each set of county maps includes a county overview map and a series of detailed maps that are at a scale of 1 inch equals 1,000 feet. Project features shown include the Site Boundary, access roads, stations, communication station sites, and communication distribution lines within the Idaho Power Company (IPC) service area. Temporary project features are also shown, including structure work areas, multi-use areas, pulling and tensioning sites, and light-duty fly yards.
- Attachment C-3 contains a map-set showing the alternative routes. This map-set is organized by alternative proceeding north to south and is at a scale of 1 inch equals 1,000 feet.

3.2 Description of the Proposed Locations

OAR 345-021-0010(1)(c)(B): A description of the location of the proposed energy facility site, the proposed site of each related or supporting facility and areas of temporary disturbance including the approximate land area of each. If a proposed pipeline or transmission line is to follow an existing road, pipeline or transmission line, the applicant shall state to which side of the existing road, pipeline or transmission line the proposed facility will run, to the extent this is known;

The Project will occur on federal, state, and private lands in five counties in Oregon and one county in Idaho. The description of the Project contained herein is limited to the Project features located in Oregon. Table C-1 describes the ownership of the lands where the Proposed Route and alternative routes will be located.

In the application for the Boardman to Hemingway transmission line to the ODOE

THE APPLICANT IS IN VIOLATION OF ORDINANCE OAR 345-001-0010(55)
THE MAPPING OF THE B2H PROJECT IN LA GRANDE

Attachment Two

Maps from exhibit C-2 and Google maps that show more detail

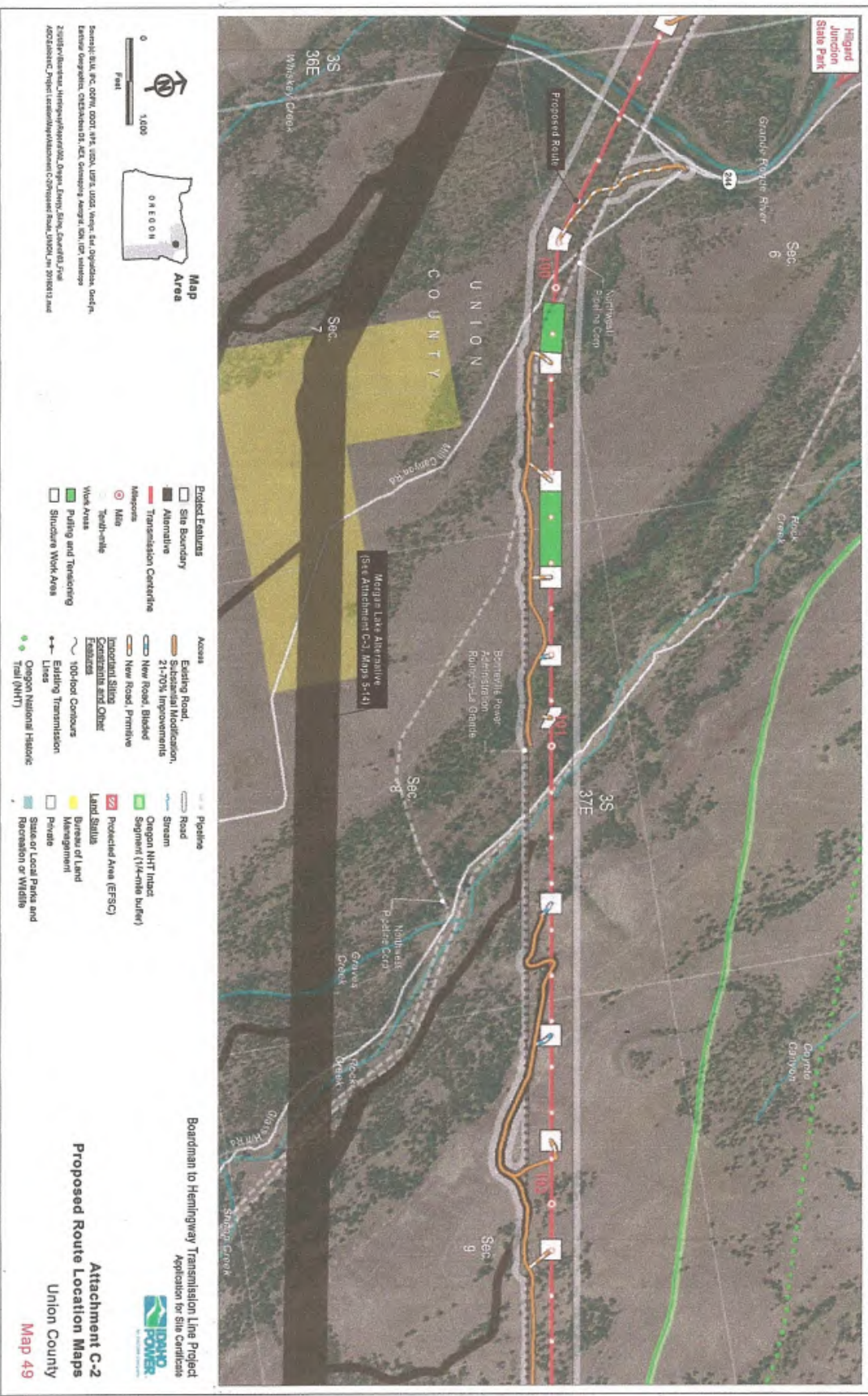
Jane and Jim Howell



- Route from 11th St to W. 11th St
across road
shown needs at 1000 ft

Footchill
Baker
Aunt
Michelle
Hawthorne

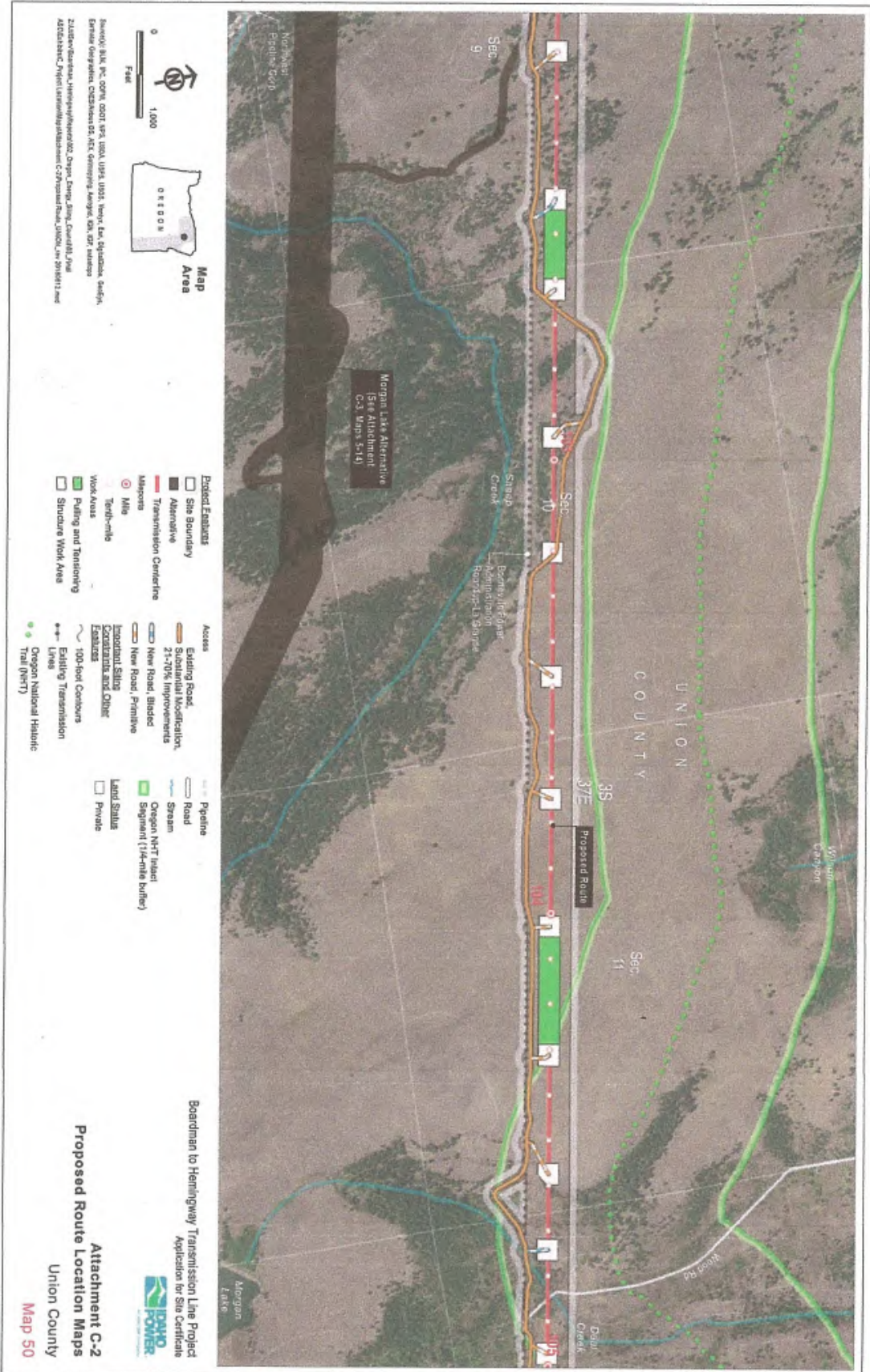
Imagery ©2019 DigitalGlobe, State of Oregon, Map data ©2019 Google 1000 ft

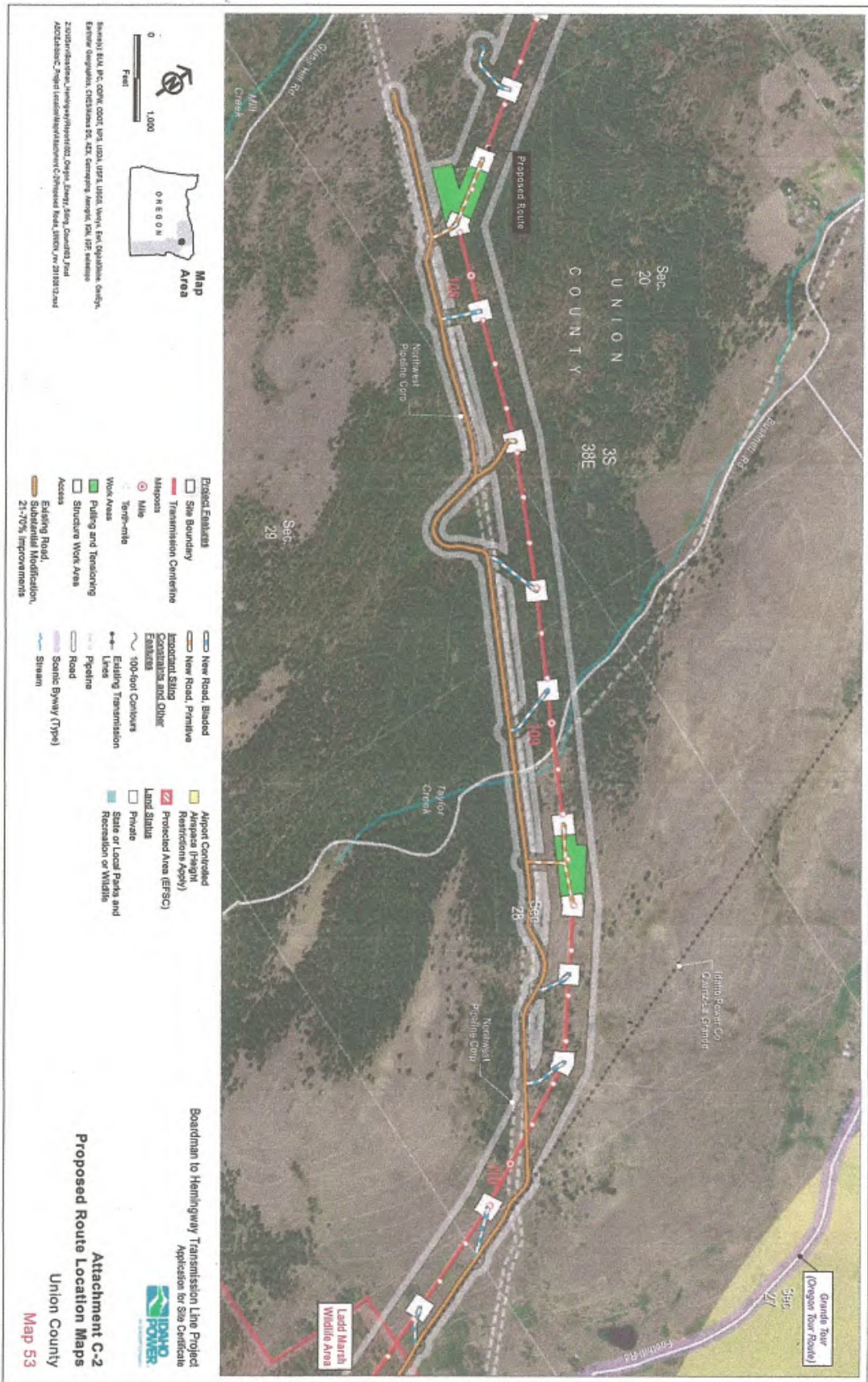


Examples of maps with no detailed route
 D

*Pulling and Sensing Station
 No rods - No shut down*

2

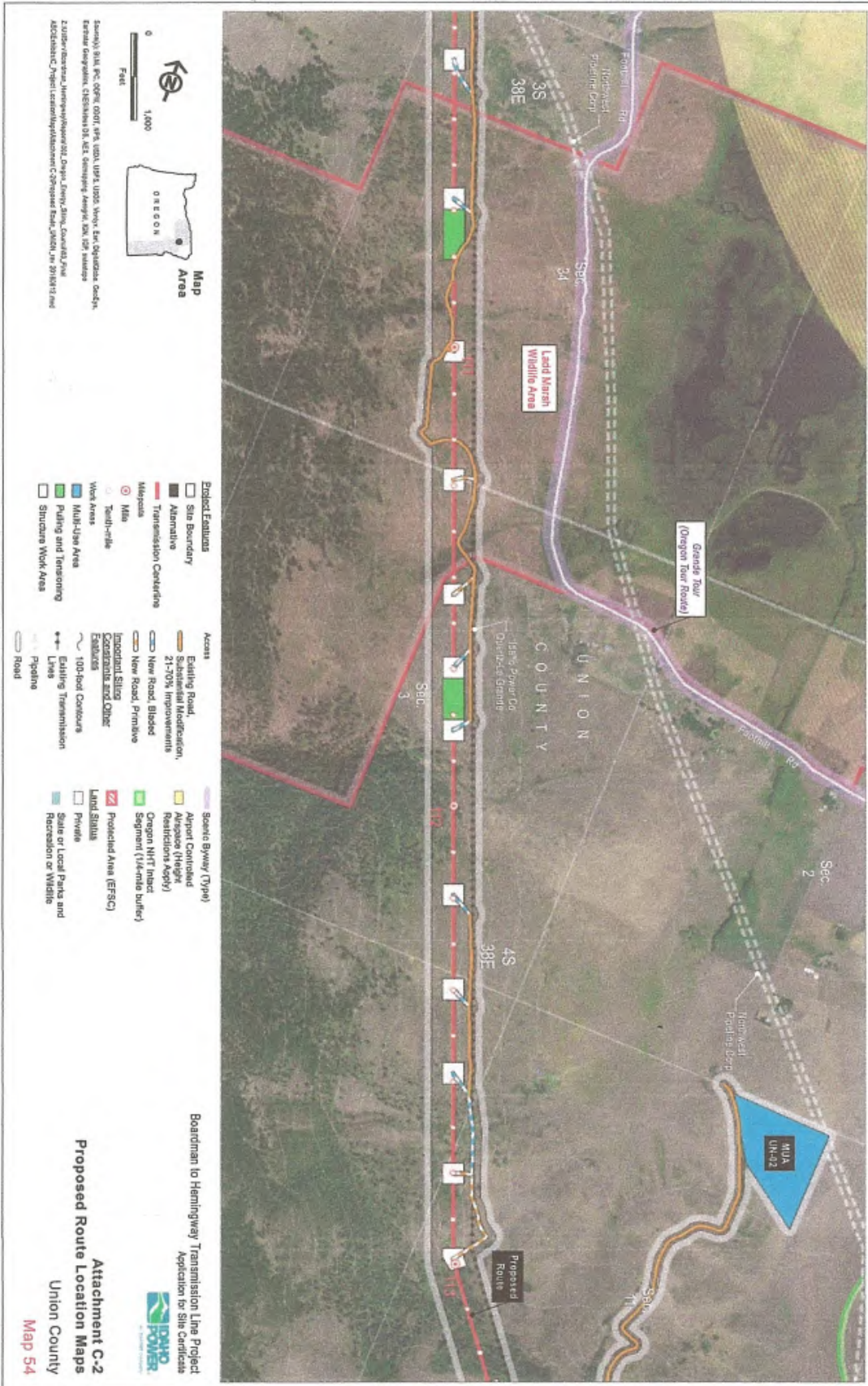




3

*Multi-Use Area UN-02
 No roads - no street names*

4



Google Maps



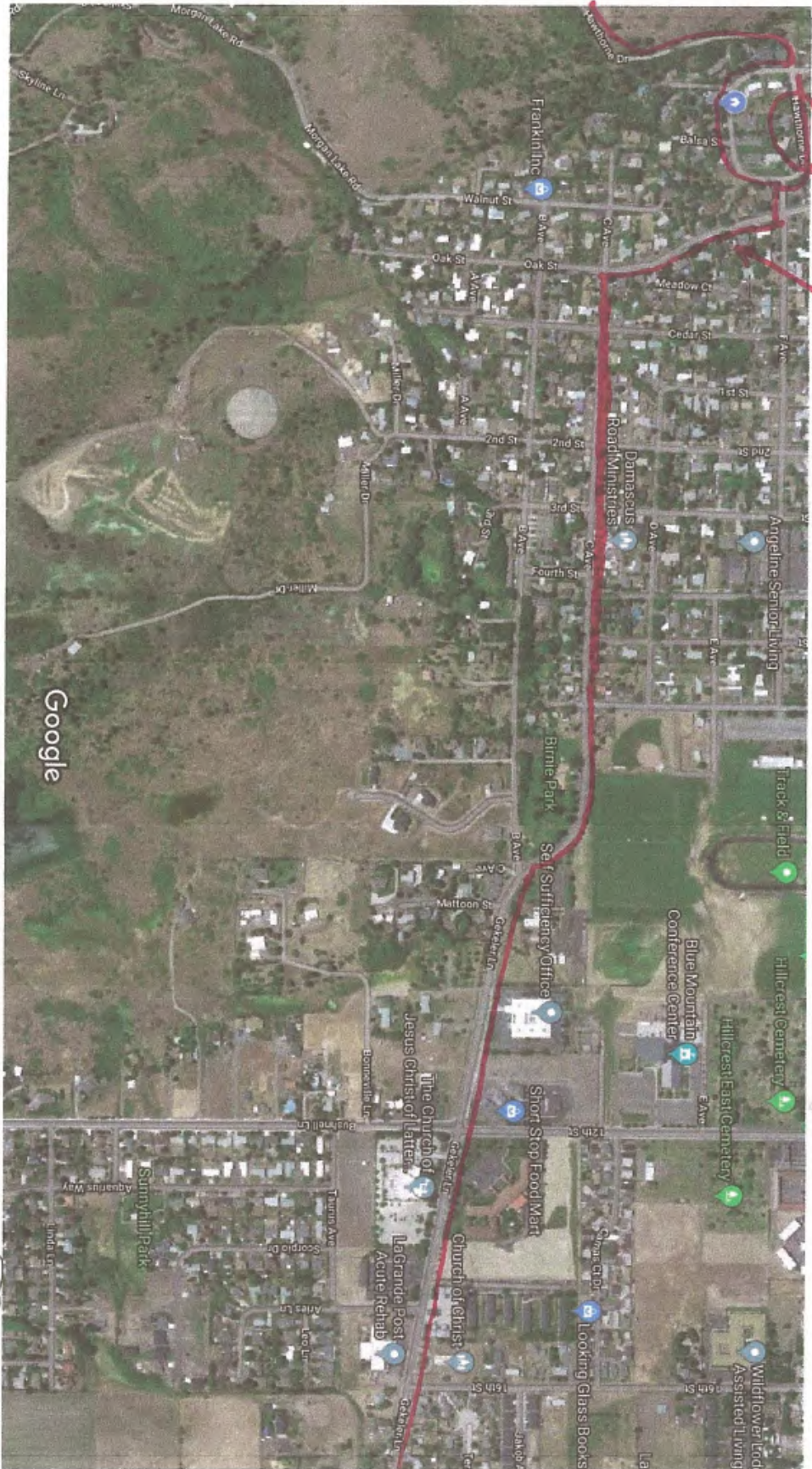
Imagery ©2019 DigitalGlobe, State of Oregon, Map data ©2019 Google 500 ft

#1

*Sheet number do not
 show until 500ft
 2 pages to get route
 from Foothills to Houston*

Google Maps

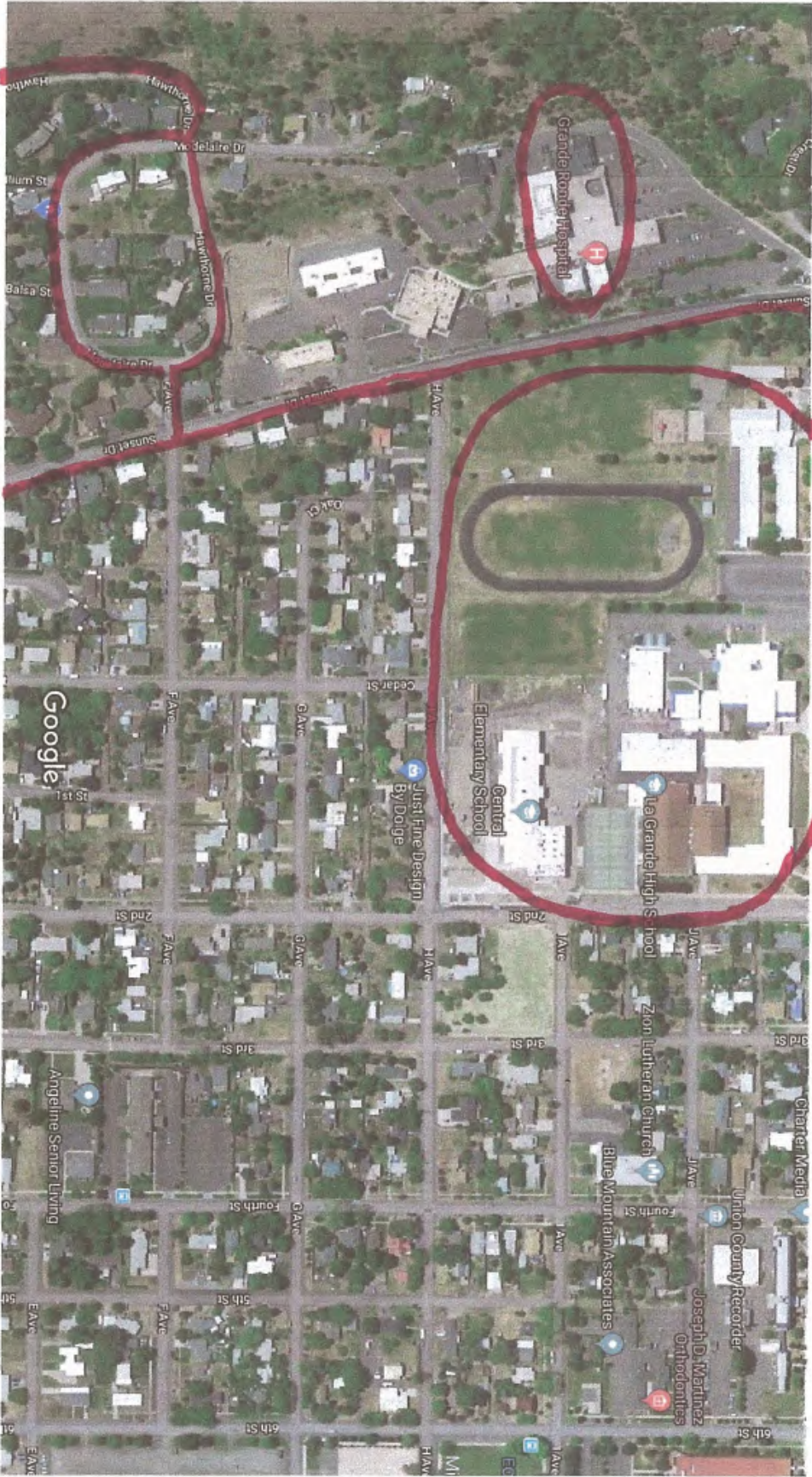
dwust



Imagery ©2019 DigitalGlobe, State of Oregon, Map data ©2019 Google

500 ft

2



Imagery ©2019 DigitalGlobe, State of Oregon, Map data ©2019 Google 200 ft

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,



Signature

James Howell

Printed Name:

Mailing Address:

442 Madeline Drive

La Grange, OR 97850

August 18, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H DRAFT PROJECT ORDER

From: Jim Howell
482 Modelaire Drive
La Grande, OR 97850

To: Chairmen Beyeler and Members of the Council

Thank you for the opportunity to comment and object.

In eastern Oregon there are no 500-kV transmission lines. B2H is very large, sometimes three time the size of current lines in the area.

Exhibit W Retirement, 3.1 Estimated Useful Life:

Idaho Power claims that the transmission line will remain in service for perpetuity. There are no references or hard data to support this optimistic estimate. In fact, 500-kV long distance transmission lines were first built in the 1960s. This same argument is being used for the "Sams Valley Reinforcement Projects" by PacifiCorp. Over the last 50 years, wind power, solar power, local distributed energy, including new battery storage will certainly affect long distance transmission lines. Cancellation of 500-kV projects such as Cascade Crossing and Colusa-Sutter in California, are specific illustrations of changes being made by forward thinking executives.

Exhibit W Retirement, 3.2 Site Restoration Activities:

On page W-3, IPC is required to "remove foundations for each support structure to a depth of one (1) foot below grade, depending on ground slope." There will be over 4400 cement foundations, most at four feet



diameter, but some up to eight feet in diameter. Regrowth of native grasses, shrubs and trees will require more than one foot of soil.

The requirement of one foot has been used on other energy facilities, but B2H is much larger than any other facilities constructed to date in eastern Oregon. IPC does not say how they will remove the reinforced concrete, but mechanical equipment will certainly leave cement chunks in the ground to be covered with some top soil. Weather erosion will soon show the remaining rebars and foundation.

ADDED CONDITION #1: Foundations will be removed to depth of three feet below grade.

Exhibit W Retirement and Financial Assurance Condition 1: This formula of required bonding will leave the public exposed to risk of returning the lands to preconstruction condition. Most damage will be done in the

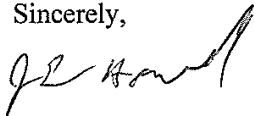
early stages of construction, such as ground disturbance for roads and right-of-way and foundation preparation. In (d.) bond or letter of credit amendments should be based upon qualified appraisal.

ADDED CONDITION #2: IPC will contract with a qualified construction appraiser to determine amount of construction completed at each six (6) month period. This amount will be used for bond or letter of credit adjustment if the amount is equal or more than \$250,000 from straight line formula.

Exhibit W Retirement and Financial Assurance Condition 2: A bond or letter of credit purpose, is to protect the public from the RISK of not having the site restored to a useful non-hazardous condition. EFSC is recommending that the Council approve the assumption that the risk to the public is ZERO (0) for 50 years, then remain under-insured for the next 50 years. If EFSC and IPC feel that the risk is zero, then the cost of the bond should be low. The risk should be moved to the bank, not forced upon the public. The fact that it may have an operating life of 100 years does not remove the risk that it is there and would need removal and ROW recondition.

ADDED CONDITION #3: On the date that the facility is placed in service, the bond or letter of credit will be set at the final appraised amount of restoration. This amount will be adjusted, by qualified appraisal, at least every 5 years.

Sincerely,



Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

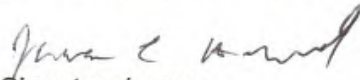
B2H EFSC FAILURE TO SURVEY ACCESSIBLE AREAS FOR NORTHERN GOSHAWK AND AMERICAN THREE-TOED WOODPECKER, FAILING TO PROVIDE CURRENT INFORMATION, AND FAILURE TO COMPLETE SURVEYS IN ACCESSABLE AREAS.

The developer indicates that reasons for incomplete surveys was because the landowners would not give permission, timing conflicts, or the need to cross parcels not approved to access the area. The applicant failed to survey 287 locations. Many are located along the applicant's "preferred option". In fact, it appears that no surveys were performed from Mile Post 95 to Mile Post 115 which is virtually the entire length of Idaho Power's preferred alternative near the city of La Grande. There are also many locations from approximately Mile Post 95 to Mile Post 105 which are accessible, but have not been surveyed. See Figure P1-1, Page P1-II of application.

Literally 1/3 of the required surveys have not been completed, and the surveys which were completed were done in 2011 and 2012. The limited additional surveys done in 2016 did not include American three-toed woodpeckers which are listed as sensitive in the analysis area. The developer is proposing no additional surveys be performed. The developer provided misleading information regarding the surveys when they listed in Figure P1-1 that surveys were completed in 2016. Only a small area was surveyed in 2016 and not for both species. In addition, none of the areas where the alternate route exists in Union County were surveyed. The applicant is proposing that a site certificate be issued based upon these dated, minimal surveys with no new surveys being conducted.

The lack of surveys in the areas near Ladd Marsh is very disturbing. There is the potential for both these bird species to be present in the area. It is part of the Survey Area, however, there are practically no surveys along the proposed line. There is no basis for failing to complete surveys on all areas that can be accessed. This project was initiated over 10 years ago. Completed surveys should have been provided in the application, not 2/3 of them. The applicant has failed to comply with the requirements of OAR 345-021-0060 regarding completion of surveys and cannot be found to be in compliance with OAR 345-022-0060.

The developer is proposing no additional surveys. The Site Certificate cannot be issued absent the developer providing current surveys of accessible areas. There is no exemption allowing a developer to provide no current information and no determination can be made regarding eligibility absent any reliable information regarding impacts to these protected birds. This material needs to be in the application prior to the Site Certificate being issued.


Signature/name
James E Howell
Address: 842 Mode lair pr.
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

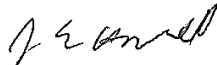
Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: James E. Howarth

Address: 482 MORRELLS DRIVE
La Grande, OR. 97850

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Sent Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I request that my letter protesting issuance of an Oregon Site Certificate for the currently proposed Boardman-to-Hemingway Transmission Project (B2H Project) be entered into the permanent written record. I also request response to, and resolve of, the issues I raise herein.

Specifically, the applicant, Idaho Power (primary) has failed to acknowledge, and as a result, address fully the presence of a Federal and State-listed, Threatened species. It has also failed to identify and address the effects of the proposed action on, not only the listed species, but the Category-1, and Federal designated Critical Habitat. A co-sponsor of the project, Bonneville Power administration, is also a party to the Federal Columbia River Power System (FCRPS) Biological Opinion, requiring them to promote conservation and recovery of Federally-listed, under the Endangered Species Act, salmon and steelhead in the interior Columbia Basin.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species, also listed as Threatened by USFWS. Similarly, the DPO only gives brief identification of federally listed Mid-Columbia River and Snake River steelhead, and Snake River spring/summer and fall Chinook salmon. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation.

Compliance with the federal Endangered Species Act (ESA) requires identification and address of the effects of the proposed action through ESA section 7(a)(2) consultation with the NMFS (anadromous fish species) or USFWS (resident fish species). ESA section 7(a)(1) also requires that federal actions (the BLM EIS/permitting) are implemented in a manner to promote the recovery of listed species. The ESA consultation process requires that the action agency (in this case BLM with USFS input for their lands), identify and speak to the effects of the action, both on the 'animal' AND on the designated critical habitat. The DPO does none of this, hence fails this requirement. Additionally, the DPO does not adequately address the adverse impacts to Federally designated critical habitat (DCH). DCH for Snake River spring/summer Chinook salmon is identified as "all areas with historical presence", and is NOT found only where they exist today. DCH ESA determinations of 'may effect' are linked to the standing PACFISH riparian habitat conservation areas (buffers) on both BLM and USFS lands. This equates to a 300-foot buffer on main rivers, and a 150-foot buffer on perennial tributaries (100-foot buffer on intermittent streams). The DPO speaks to only stating there will be no roads below 'ordinary high-water mark'. This in no uncertain terms addresses the Primary Constituent elements of the DCH for salmon OR steelhead.

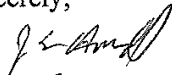
The applicant has failed to comply with both federal and state requirements to address adverse effects of the proposed action on identified threatened (state or federal designation) fish species and their habitats!

The Grande Ronde River watershed contains a well-documented population of Bull Trout, Snake River steelhead, and Snake River spring/summer Chinook salmon. By state statute, wherever a portion of a watershed contains a Threatened or Endangered species, the entire watershed is reviewed for its potential impacts to those species under federal protection. The Grande Ronde River watershed encompasses the entirety of Union county, and the majority of Wallowa county. As evaluated in the DPO, ASC Exhibit P, suitable habitat used by state-listed Threatened and Endangered species is designated pursuant to ODFW's Habitat Mitigation Policy, and EFSC's Fish and Wildlife Habitat standards, as Category-1 Habitat, where any impact, direct or indirect is prohibited. There is NO mitigation for Category-1 Habitat! And given the DPO does not address federal ESA consultation requirements, it too, is out of compliance and undercutting the purpose of this federal law.

The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited for Cat-1 Habitats, the magnitude of impact becomes irrelevant, rather, not lawful. Hence, the applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, and the Idaho Power's B2H proposed action's permit, being not in compliance with state nor federal protected species laws, should be denied.

In view of the fact that sufficient recovery of the area's Bull Trout, SR-steelhead, and SR s/s Chinook salmon populations and their down-listing from its Threatened status is reliably projected to be a matter of decades, and especially with the current and projected compounding effects of climate change, issuance of a **Site Certificate by the State of Oregon should be denied, with prejudice!**

Sincerely,



JAMES E HOWELL
<insert name and address.

482 Modelaine Drive
La Grande, OR 97850

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I respectfully request that this letter protesting issuance of a Site Certificate for the proposed Boardman to Hemingway Transmission Project be entered on the record.

Specifically, the applicant has failed to acknowledge the presence of a Federal and State-listed, Threatened species, and has failed to identify Category-1, Critical Habitat.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species, also listed as Threatened by USFWS. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation. The applicant has failed to comply with these requirements!

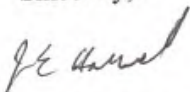
The Grande Ronde river watershed contains a well-documented population of Bull Trout. By statute, wherever a portion of a watershed contains a Threatened or Endangered species, the entire watershed is under federal protection. The Grande Ronde river watershed encompasses the entirety of Union county, and the majority of Wallowa county. As evaluated in the DPO, ASC Exhibit P, suitable habitat used by state-listed Threatened and Endangered species is designated pursuant to ODFW's Habitat Mitigation Policy, and EFSC's Fish and Wildlife Habitat standards, as Category-1 Habitat, where any impact, direct or indirect is prohibited. There is NO mitigation for Category-1 Habitat!

The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited, the magnitude of impact becomes irrelevant.

The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, as noted above.

In view of the fact that sufficient recovery of the Bull Trout population to remove its Threatened status is reliably estimated to be a matter of decades, issuance of a **Site Certificate should be denied, with prejudice!**

Sincerely,



Printed Name: James E Howell
Address: 482 Modocair Drive
La Grande, OR 92850

August 14, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

I appreciate the opportunity to comment on the B2H Draft Proposed Order. The Oregon National Historic Trail will be significantly affected by the B2H Transmission Line.

The Draft Proposed Order identifies significant impacts to the Oregon Trail in several Exhibits, including Exhibit C: Property Location and Maps; Exhibit L: Protected Areas; Exhibit R: Scenic Aesthetic Values; Exhibit S: Cultural Resources; Exhibit T: Recreational Facilities; and Exhibit X: Noise.

B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, **except at the Oregon Trail Interpretive Center at Flagstaff Hill.**

The B2H Transmission Line should be buried for approximately 2 to 2 ½ miles to comply with the exhibits indicated above. Idaho Power has from the early years refused to do any significant analysis for this option. IPC uses cost as the reason for stating that undergrounding is not feasible. Cost is not a specific standard, and costs are the responsibility of the Oregon Public Utilities Commission during rate considerations. EFSC has determined that IPC has the Financial ability even if some partners choose to not participate, so reasonable cost should not be a determining factor for EFSC.

EFSC should refuse to approve the Draft Project Order for the following reasons:

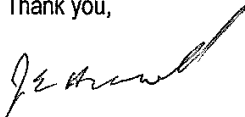
1. Does not comply with Noise Standards as no measurements were done at the Oregon Trail viewpoint or walking trails endpoint near milepost 146. Perhaps not a "Noise Sensitive Property," in the context of residential sleeping areas; however, certainly for tourists and visitors to the Interpretive Center and hiking trails noise will be disturbing. Map 23 in Attachment X-1 does not even show the Oregon Trail.
2. Within OAR 345-022-0040 Protected Areas and ODEQ standards 340-035-0000-0100, this area should have been monitored and modeled as a Noise Sensitive Property and was not.
3. Does not comply with Scenic Values from the Blue Mountains Parkway and Oregon Trail Interpretive Center. The OR 86 encourages drivers to STOP and read interpretive signs, so viewer perception and resource change cause significant decrease of scenic values. IPC says no significant impact.
4. The DPO does not comply with Exhibit L Protected Areas. The BLM ACEC at Flagstaff Hill has not considered undergrounding for the protection of the Oregon Trail. No analysis found the pristine, Class 1 swales of the Oregon Trail within the ACEC located at: Lat 44.813762 Long -117.750194 or 44° 48' 48.26"N 117° 75' 57.97"W. IPC proposes to build a new constructed road over the Oregon Trail in the area identified in the location above.

5. The DPO does not meet the standards required for Exhibit T Recreational Facilities, OAR 345-022-0100, especially at the Flagstaff Hill interpretive center, because of:
 - a. It is a BLM ACEC area managed for public tourism
 - b. It is the single most visited tourist facility in Baker County
 - c. The quality of the facility is outstanding
 - d. There is no other place where the Oregon Trail can be seen and interpreted.
6. The cost estimates of IPC do not compare with those of the *Edison Electric Institute*, January 2013 publication "Out of Sight, Out of Mind, An Updated Study of the Undergrounding of Power Lines." This article suggests that for 2.5 miles of rural undergrounding, the cost will be \$67,500,000. This is almost half the IPC estimate.

The Oregon Trail along the route of the B2H has the most damaging effects to its critical historic elements. Once the Trail is gone it cannot be reconstructed or mitigated back to life. Once gone, always gone. The only easily accessible public facility in Oregon is the Flagstaff Hill Interpretive Center near Baker City. The B2H must be buried to preserve this important site.

Considering the reasons above and the unconscionable desecration of our national treasure, the Council Must Deny the site certificate for the Boardman to Hemingway Transmission project.

Thank you,



Signature

Printed Name: James E Howell

Mailing Address: 482 Modesto Drive
La Grande, OR 97850

Email:

August 14, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

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B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, **except at the Oregon Trail Interpretive Center at Flagstaff Hill.**

The B2H Transmission Line should be buried for approximately 2 to 2 ½ miles to comply with the exhibits indicated above. Idaho Power has from the early years refused to do any significant analysis for this option. IPC uses cost as the reason for stating that undergrounding is not feasible. Cost is not a specific standard, and costs are the responsibility of the Oregon Public Utilities Commission during rate considerations. EFSC has determined that IPC has the Financial ability even if some partners choose to not participate, so reasonable cost should not be a determining factor for EFSC.

EFSC should refuse to approve the Draft Project Order for the following reasons:

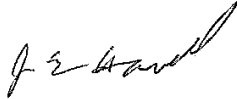
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Considering the reasons above and the unconscionable desecration of our national treasure, the Council Must Deny the site certificate for the Boardman to Hemingway Transmission project.

Thank you,



Signature

Printed Name: ~~James~~ E Howell

Mailing Address: 482 Modelaire Dr.
La Grande, OR 97850

Email:

August 10, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

Morgan Lake Park, analyzed as part of the Morgan Lake Alternative - (Attachment T-3, Table T-2, p. T-3-2; Table T-3-1, p. T-13) and Summary of Impacts, pp. T-27-28, 43, (T-4-51-56), inaccurately describes features of the park itself and severely underestimates the permanent impact of development on this unique city park.
See OAR 345-021-0010 (1) (T) (A) (B) (D) & OAR 345-022-0100

Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities per OAR 345-021-0010(1)(t)(A) Attachment T-3, Table T-3-1 (p. T-13)

Page 62 (T-57) refers to “extensive work in the siting study of the Morgan Lake Alternative.” That is doubtful because it is completely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. In their application, Idaho Power omits any references to Twin Lake.

Page 156, (T-4-6) purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

2) b. A specific example of unsupported conclusion:

Page 145 (T-4-46) Baseline condition: “... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users...”

Page 146 (T-4-47) “The landscape character is natural appearing. Scenic integrity is high as the human developments are harmonious with the landscape.”

Page 49 (T-44) “Vegetation will block views of the towers from most locations in the park.” In reality, one tower would dominate the entrance to the park, all 130’ in plain view. Within the Park, the trees bordering the lake are no more than 80’ high. 130’ transmission towers will rise more than 50’ above those trees, dominating the current landscape.

Idaho Power does not provide a graphic representation of Morgan Lake Park, with the accurate height of existing trees, and elevation of towers above the trees. It simply concludes that the inescapable sight of 500 kV transmission lines and towers around a natural lake setting will have "no significant impact" on Morgan Lake Park.

This is the park whose baseline "should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users" [because 50 years ago, no one ever imagined anything larger than a human being, might ever intrude]..."

I urge the Commission to deny this application for a site certificate until each comment submitted and sent to the Commission by August 22 has been thoroughly analyzed, and Idaho Power has provided credible evidence to support each of its conclusions of "no significant impact."



Signature

Name: James E. Howell

Mailing Address: 482 Madeline Drive
LaGrange, OR 97850

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

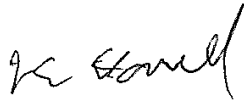
Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,



Name: James E. Howell

Address: 482 Modelcive Drive
La Grande, OR 97850
8

<insert date>

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via Email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the B2H Transmission Project 9/28/2018; DPO 5/23/2019

Dear Chair Beyeler and Members of the Council:

My comment is about the blasting that would likely be required during the construction phase of the B2H line near MP 106—108 of the IPC-preferred Mill Creek route. Although the application does not specify where blasting will occur, *Attachment G-5 Framework Blasting Plan* states: "Blasting may be needed in certain areas with rocky terrain to excavate tower footings, prepare station pads, and to construct access roads."

The relevant standard is the 345-022-0020 Structural Standard:

"(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility;"

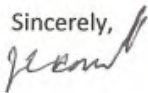
My impression from reviewing the application is that the applicant has not fully considered the impacts of blasting on the nearby unstable slope in a populated area of La Grande, Oregon. The map on page 169 of *Exhibit H Geological Hazards and Soil Stability*, shows the B2H line at MP 106—108, where it is within about 2500' of a populated "Unconsolidated Sediments" zone (labeled Qf) and then crosses a "Landslide Deposits" zone (labeled Qls) near MP 108.

The application also mentions the slope instability in a small part of this area, on page 112 of *Exhibit H – Attachment H-1 Appendix B Soils Data Tables and Maps*:

"One of the landslides mapped by Schlicker and Deacon (1971), not included in SLIDO, intersects the IPC Proposed Route between towers 106/3 and 106/4. Based on review of topography and aerial photographs, this mapped landslide may impact the proposed work areas around tower 106/4. A field reconnaissance of this area should be performed as part of the geotechnical exploration program."

My concern is more about the construction process than about the integrity of the towers after construction. The application identifies the problem in general but provides no detail about the blasting or about the potential effects on nearby houses in an area that the City of La Grande designates as a "Geologic Hazard Zone." We know that each tower footing will require a hole 30—50' deep, and that the bedrock underneath the line at MP 106—108 will almost certainly require blasting for efficient excavation. The application does not address this concern, and the proposed construction is simply too close to a populated area to mitigate the risk of damage to homes. The application does not comply with the relevant standard.

Sincerely,



JAMES E. HOWELL
482 Mademoiselle Drive
La Grande, OR 97850

<insert your name>

<insert your address>

August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

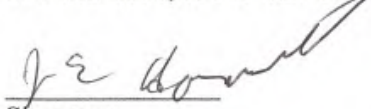
I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**



Signature

Printed name: JAMES E HOWELL

Mailing address: 482 Madeline Drive
La Grande, OR 97850

Email address:

phone number: (optional)

August 10, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

I am a long time La Grande resident. I have always treasured Morgan Lake as an exceptional part of my enjoyment of this area, and I was pleased to see that the applicant apparently agrees with me:

Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities per OAR 345-021-0010(1)(t)(A) Attachment T-3, Table T-3-1 (p. T-13).

I certainly agree with this part of the application:

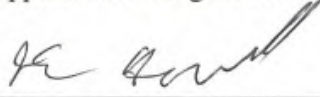
Page 146 (T-4-47) "The landscape character is natural appearing. Scenic integrity is high as the human developments are harmonious with the landscape," but I can't imagine how pine trees no taller than 80' are supposed to "... block views of the towers from most locations in the park." p. 49 (T-44)
I don't see any photos or graphics that support that conclusion. Is it so just because Idaho Power says it's so?

Because I have visited Morgan Lake many times over the years, I was surprised by the incomplete and thus inaccurate description of Morgan Lake Park:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, with one lake. Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, right beside it, covers 27 acres.

Twin Lake is basically a wet lands which blooms with beautiful yellow water lilies in the spring. It is completely undeveloped. The bird population, including ducks, geese, osprey, cormorants, and nesting bald eagles, as well as other wildlife, enjoys this special sanctuary.

I have to wonder how Idaho Power, which claims to have carefully surveyed all the areas the transmission line might impact, could have omitted such an important feature of the Park. How many other errors are in the application? I urge EFSC to require documentation to support all of applicant's conclusions.


signature

Name: James E. Howe

Address: 482 Mole Lake Drive
La Grande, OR 97850

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
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Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.



Signature Printed Name

Mailing Address: 482 Madeline Drive
La Grande, OR 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Vial EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

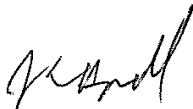
Dear Chair Beyeler and Members of the Council:

For the Boardman to Hemingway Transmission Line, Idaho Power failed to provide noise estimates for the lay down areas and other previously unused sites with impacts from items contained in OAR 340-035-0035(5)(b)-(f), (j), and (k). The developer incorrectly determined they were not required to do so.

The exception to requiring noise impacts from sources listed in subsections (5)(b) - (f), (j), and (k) does not apply to developments on sites not previously used. When a lay down area or other development is located on a site not previously used, the rule states "Sources exempt from the requirements of this rule which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." (OAR 340-035-0035(1)(b)(B)(iii)) The applicant must provide noise monitoring results for all lay down areas or other areas where these types of noise will occur and the area was not previously used.

The applicant has not provided information necessary to determine compliance with the noise standard or if conditions can be included which would make them meet the noise standard.

Sincerely,



Signature

Printed Name: James E Howe 4

Mailing Address: 482 Modelaine Drive
Le Grand, OR 97850

August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301
Kellen.Tardaewether@oregon.gov

Subject: Idaho Power Amended Application for the Boardman to Hemingway Transmission Project dated 9/28/2018; Draft Proposed Order dated 5/22/2019

Dear Chair Beyeler and Members of the Council;

My comments concern Idaho Power's faulty and illegal "Noxious Weed Plan" (DPO Attachment P 1-5) as well as their failure to take into account in any way, the Oregon Conservation Strategy.

The Oregon Conservation Strategy <http://oregonconservationstrategy.org/overview/> "represents Oregon's first overarching state strategy for conserving fish and wildlife. It uses the best available science to create a broad vision and conceptual framework for long-term conservation of Oregon's native fish and wildlife, as well as various invertebrates, plants, and algae. The Conservation Strategy emphasizes proactively conserving declining species and habitats to reduce the possibility of future federal or state listings. It is not a regulatory document but instead presents issues, opportunities, and recommended voluntary actions that will improve the efficiency and effectiveness of conservation in Oregon."

Under the Oregon Conservation Strategy, IPC's B2H project is a Key Conservation Issue: "(KCI) are large-scale conservation issues or threats that affect or potentially affect many species and habitats over large landscapes throughout the state."

Despite being a Key Conservation Issue, the Oregon Conservation Strategy and its Goals, are not mentioned in IPC's Application at all! Consider Land Use Planning Goal 1: *Manage land use changes to conserve farm, forest, and range lands, open spaces, natural or scenic recreation areas, and fish and wildlife habitats.* Neither the current Proposed Route nor Morgan Lake Alternative of IPC's Application to EFSC takes these into account! Even if we ignore the fact that the B2H Project likely is not needed at all, given lowered demand and improved technology of energy storage batteries—IPC intends to disregard the "Proposed Route" considered in the BLM/USFS Records of Decision. That "Proposed Route" was chosen by the agencies as being the least harmful to the greatest list of resources—yet IPC has abandoned that in favor of two other routes imminently MORE harmful and despised by MOST residents of Union County. Is Goal 1 being met when the B2H line goes less than 100 feet from Twin Lake, a gem of a wetland that deserves protection? Is Goal 1 being met when B2H goes through Rice Glass Hill property, proposed as a State Natural Area? Is Goal 1 being met when noxious weeds are spread by B2H through Union County's finest wet meadows and elk wintering habitat?

No, Goal 1 one is not being met. Another very specific example is 5 State listed rare plant species (DPO Exhibit Q) within the B2H "analysis area". IPC claims "only" two of these rare species (Mulford's milkvetch and Snake River goldenweed) will suffer "direct impacts", by blading with heavy equipment. IPC claims that, "Avoidance and minimization measures ...described in Section 3.5.4" will "mitigate" impacts. Upon reading 3.5.4 we find that this consists of "minimum buffer of 33 feet between the disturbance and the edge of the T&E

occurrence". Habitat for these plants will be completely fragmented and a buffer of 33 – or even a few hundred--feet will not stop invasion by noxious weeds! These species will suffer irreparable damage under B2H. The Oregon Conservation Strategy rightly recognizes, "Invasive species are the second-largest contributing factor causing native species to become at-risk of extinction in the United States."

To delve further into rare plants slated for damage by B2H, *Trifolium douglasii* is a USFWS "Species of Concern" <https://www.fws.gov/oregonfwo/Documents/OregonSpeciesStateList.pdf> yet not even considered in IPC's 3.5 "Avoidance to Minimize Impacts". Although List 1 under ORBIC's latest ranking <https://inr.oregonstate.edu/orbic/rare-species/ranking-documentation/vascular-plant-ranks> it is not shown as State listed Threatened or Endangered, so is ignored by IPC. Species of Concern are "Taxa whose conservation status is of concern to the U.S. Fish and Wildlife Service (many previously known as Category 2 candidates), but for which further information is still needed." Douglas clover has a global rank of G2 "Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (extirpation), typically with 6-20 occurrences". DPO Exhibit P Part 2b Appendix 3A and 3B Figure 9 of 23 shows Douglas clover directly on the Morgan Lake alternative! This is not even taking into account that areas of private land where access was not granted for survey, likely contain additional occurrences of Douglas clover. The area is THE main place where this rare plant grows in Oregon, and B2H is set to permanently alter and compromise its main habitat with weeds!

Another very obvious lack is IPC's failure to discuss Strategy Habitats, outlined in Oregon's Conservation Strategy: <http://oregonconservationstrategy.org/strategy-habitats/strategy-habitats-summary-by-ecoregion/>.

In Union County alone, the Strategy Habitats of Grasslands, Late Successional Mixed Conifer Forest, and Ponderosa Pine Woodlands would very obviously be impacted by B2H as proposed in the Application.

The Application also neglects to address Strategy Species under OCS "The Conservation Strategy identifies 294 Strategy Species, which are Oregon's "Species of Greatest Conservation Need". Strategy Species are defined as having small or declining populations, are at-risk, and/or are of management concern. "This is completely unacceptable! How can an action set to devastate so many of Northeast Oregon's Strategy Habitats and Species not even respond to our State Conservation Strategy?"

Moving on to invasives, IPC's "Noxious Weed Plan" is greatly lacking. As noted above, it is a threat to Oregon's native plant communities. Oregon's Conservation Strategy states "Invasive non-native species can have many negative consequences throughout Oregon. Depending on the species and location, invasive plants can:

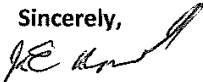
- affect food chain dynamics
- change habitat composition
- increase wildfire risk
- reduce productivity of commercial forestlands, farmlands, and rangelands
- modify soil chemistry
- accelerate soil erosion
- reduce water quality"

Chapter 569 of Oregon law covers weeds. Oregon statute 569.180 (Noxious weeds as public nuisance policy) states, "In recognition of the imminent and continuous threat to natural resources...noxious weeds are declared to be a public nuisance and shall be detected, controlled and, where feasible, eradicated on all lands in this state."

Upon careful reading, "Noxious Weed Plan" breaks the law by exempting IPC from weed control after 5 years, denying responsibility for Class B and C Weed species (the vast majority of weeds), and holding IPC accountable for only the very limited area of ROW, despite the B2H project introducing and spreading weeds far and wide along a 300 mile stretch plus dozens of additional access roads and tensioning areas.

In summary, IPC's Application does not take into account the Oregon Conservation Strategy. The Application clearly is breaks Goal 1 of the Strategy in many ways; additionally the Application imperils a Federal "Species of Concern", and does not consider Strategy Habitats or Strategy Species. IPC's Noxious Weed Plan does not comply with Chapter 569 of Oregon law. I strongly urge you to deny IPC's Application. Our State Conservation Strategy and Goals and the integrity of our native plant habitats and rare plant occurrences cannot be sacrificed!

Sincerely,



Name James E Howe II

Address 482 Madeira Drive
Le Grand, OR 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Vial EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

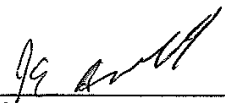
Dear Chair Beyeler and Members of the Council:

For the Boardman to Hemingway Transmission Line, Idaho Power failed to provide noise estimates for the lay down areas and other previously unused sites with impacts from items contained in OAR 340-035-0035(5)(b)-(f), (j), and (k). The developer incorrectly determined they were not required to do so.

The exception to requiring noise impacts from sources listed in subsections (5)(b) - (f), (j), and (k) does not apply to developments on sites not previously used. When a lay down area or other development is located on a site not previously used, the rule states "Sources exempt from the requirements of this rule which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." (OAR 340-035-0035(1)(b)(B)(iii)) The applicant must provide noise monitoring results for all lay down areas or other areas where these types of noise will occur and the area was not previously used.

The applicant has not provided information necessary to determine compliance with the noise standard or if conditions can be included which would make them meet the noise standard.

Sincerely,



Signature

Printed Name: JAMES E. HOWELL

Mailing Address: 482 Model Lake Drive
La Grange, OR 97050

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

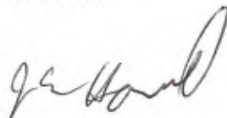
As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.



(Signature)

Name: James E. Howery

Address: 482 Meadowlark Drive
La Grange, OR 97850

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I doubt it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power's ASC. If the IPC surveying and engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it's disquieting to imagine their difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake routes, rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by a individuals whose remote properties and summer cabins would have been impact by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASCand DPO which will be addressed in a separate comment.



Signature

Name: James E Howell
Modelaine Drive

Address: 482 ~~La Grande~~ OR

La Grande, OR 97850

August 1, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

1. Idaho Power failed to provide noise estimates for the lay down areas and incorrectly determined they were not required to do so.
2. Idaho Power failed to include all sources of noise as required by OAR 340-035-0035 in noise modeling done on all sites which were not previously used.

References:
OAR 340-035-0035

The exception to requiring noise impacts from sources listed in subsections (5)(b) - (f), (j), and (k) does not apply to developments on sites not previously used. When a lay down area, or other development is located on a site not previously used, the rule states "Sources exempt from the requirements of section (ii) of this rule which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The applicant must provide noise monitoring results for all lay down areas or other areas where these types of noise will occur in areas not previously used.

Site Condition needed:

The applicant will complete noise modeling which includes the noise sources identified in OAR 340-035-0035 for all areas where development will occur on sites not previously used. The uses are contained in OAR 345-035-0035(5)(b) - (f), (j), and (k).

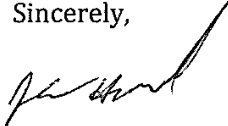
For any site exceeding the noise standards, the developer will obtain a waiver from the property owner prior to the start of construction, or establish through all available means of mitigation that the location will not exceed the noise standard.

When applying another agency's rules, the Oregon Department of Energy and Energy Facility Siting Council do not have the authority to make unique interpretations of common terms like "infrequent". The Oregon DEQ as the agency responsible for the rules must

provide any interpretation if indeed one is needed beyond the dictionary and common use of the term.

Noise surveys have not been completed, and it has not been established that the project will be able to meet the requirements of the standard, therefore, the site certificate must be denied.

Sincerely,



Signature

Printed Name: James E. Howell II

Mailing address: 482 Madeline Drive
La GRANDE, OR 97850

August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301
Kellen.Tardaewether@oregon.gov

Subject: Idaho Power Amended Application for the Boardman to Hemingway Transmission Project dated 9/28/2018; Draft Proposed Order dated 5/22/2019

Dear Chair Beyeler and Members of the Council;

My comments concern Idaho Power's faulty and illegal "Noxious Weed Plan" (DPO Attachment P 1-5) as well as their failure to take into account in any way, the Oregon Conservation Strategy.

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To delve further into rare plants slated for damage by B2H, *Trifolium douglasii* is a USFWS "Species of Concern" <https://www.fws.gov/oregonfwo/Documents/OregonSpeciesStateList.pdf> yet not even considered in IPC's 3.5 "Avoidance to Minimize Impacts". Although List 1 under ORBIC's latest ranking <https://inr.oregonstate.edu/orbic/rare-species/ranking-documentation/vascular-plant-ranks> it is not shown as State listed Threatened or Endangered, so is ignored by IPC. Species of Concern are "Taxa whose conservation status is of concern to the U.S. Fish and Wildlife Service (many previously known as Category 2 candidates), but for which further information is still needed." Douglas clover has a global rank of G2 "Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (extirpation), typically with 6-20 occurrences". DPO Exhibit P Part 2b Appendix 3A and 3B Figure 9 of 23 shows Douglas clover directly on the Morgan Lake alternative! This is not even taking into account that areas of private land where access was not granted for survey, likely contain additional occurrences of Douglas clover. The area is THE main place where this rare plant grows in Oregon, and B2H is set to permanently alter and compromise its main habitat with weeds!

Another very obvious lack is IPC's failure to discuss Strategy Habitats, outlined in Oregon's Conservation Strategy: <http://oregonconservationstrategy.org/strategy-habitats/strategy-habitats-summary-by-ecoregion/>.

In Union County alone, the Strategy Habitats of Grasslands, Late Successional Mixed Conifer Forest, and Ponderosa Pine Woodlands would very obviously be impacted by B2H as proposed in the Application.

The Application also neglects to address Strategy Species under OCS "The Conservation Strategy identifies 294 Strategy Species, which are Oregon's "Species of Greatest Conservation Need". Strategy Species are defined as having small or declining populations, are at-risk, and/or are of management concern. "This is completely unacceptable! How can an action set to devastate so many of Northeast Oregon's Strategy Habitats and Species not even respond to our State Conservation Strategy?"

Moving on to invasives, IPC's "Noxious Weed Plan" is greatly lacking. As noted above, it is a threat to Oregon's native plant communities. Oregon's Conservation Strategy states "Invasive non-native species can have many negative consequences throughout Oregon. Depending on the species and location, invasive plants can:

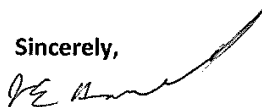
- affect food chain dynamics
- change habitat composition
- increase wildfire risk
- reduce productivity of commercial forestlands, farmlands, and rangelands
- modify soil chemistry
- accelerate soil erosion
- reduce water quality"

Chapter 569 of Oregon law covers weeds. Oregon statute 569.180 (Noxious weeds as public nuisance policy) states, "In recognition of the imminent and continuous threat to natural resources...noxious weeds are declared to be a public nuisance and shall be detected, controlled and, where feasible, eradicated on all lands in this state."

Upon careful reading, "Noxious Weed Plan" breaks the law by exempting IPC from weed control after 5 years, denying responsibility for Class B and C Weed species (the vast majority of weeds), and holding IPC accountable for only the very limited area of ROW, despite the B2H project introducing and spreading weeds far and wide along a 300 mile stretch plus dozens of additional access roads and tensioning areas.

In summary, IPC's Application does not take into account the Oregon Conservation Strategy. The Application clearly is breaks Goal 1 of the Strategy in many ways; additionally the Application imperils a Federal "Species of Concern", and does not consider Strategy Habitats or Strategy Species. IPC's Noxious Weed Plan does not comply with Chapter 569 of Oregon law. I strongly urge you to deny IPC's Application. Our State Conservation Strategy and Goals and the integrity of our native plant habitats and rare plant occurrences cannot be sacrificed!

Sincerely,



Name

Address

JAMES E. HOWELL
442 Modesto Drive
LaGrange, OR 97850

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

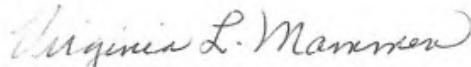
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

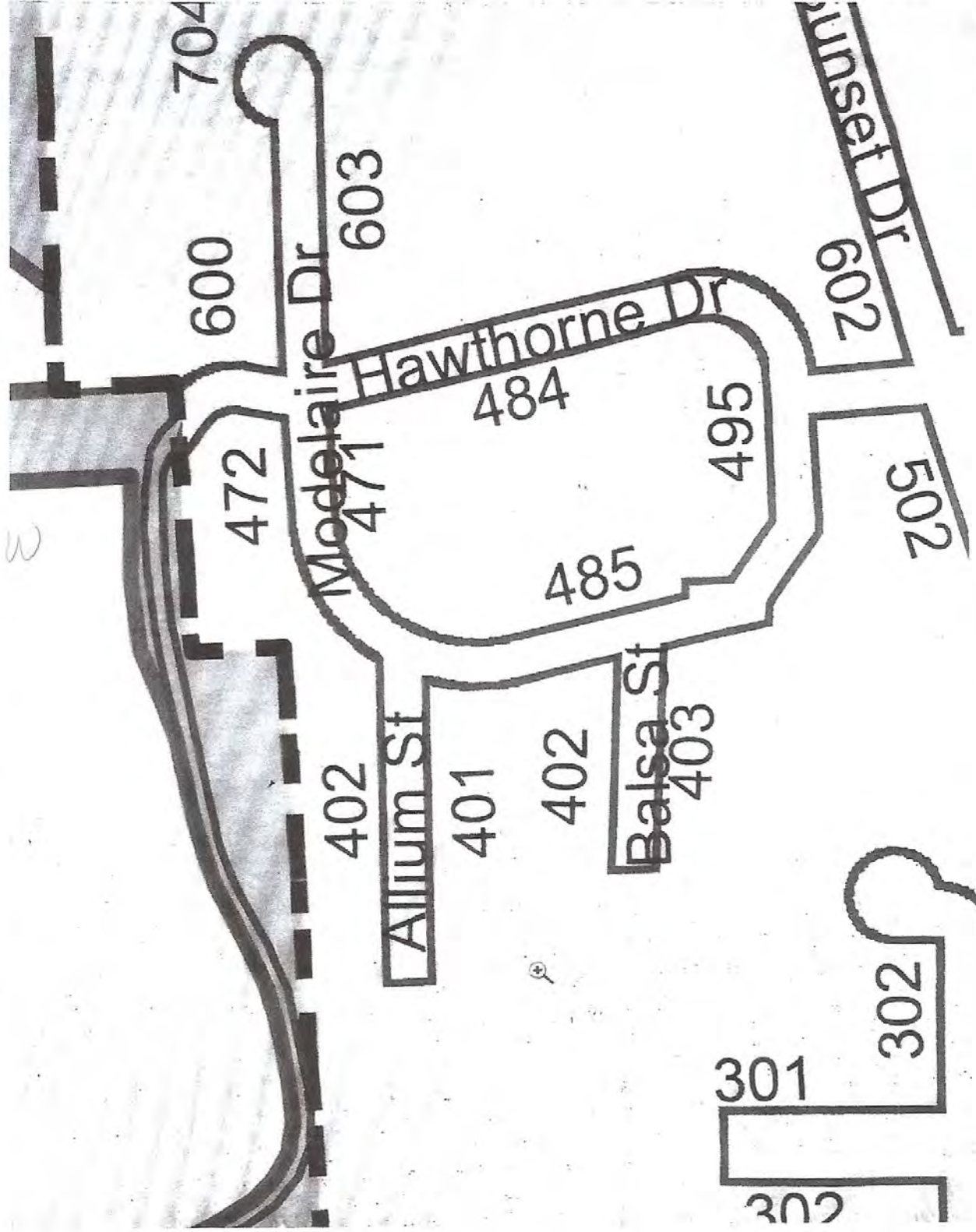


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



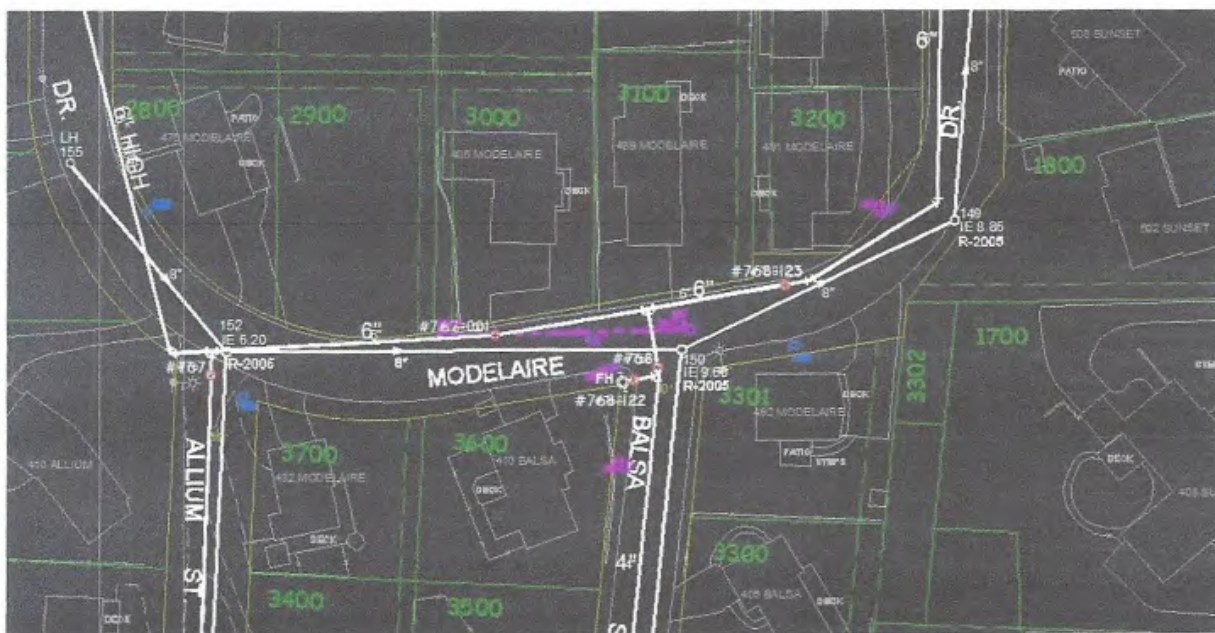
Hawthorne.jpg
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Modelaire.jpg
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7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

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Exhibit 8



Exhibit 9

attachment U2

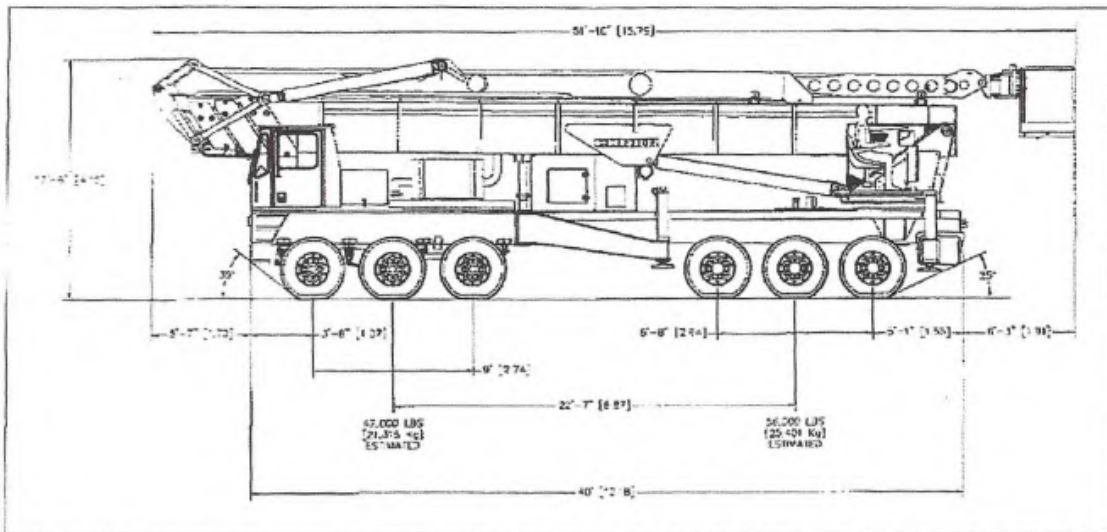


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

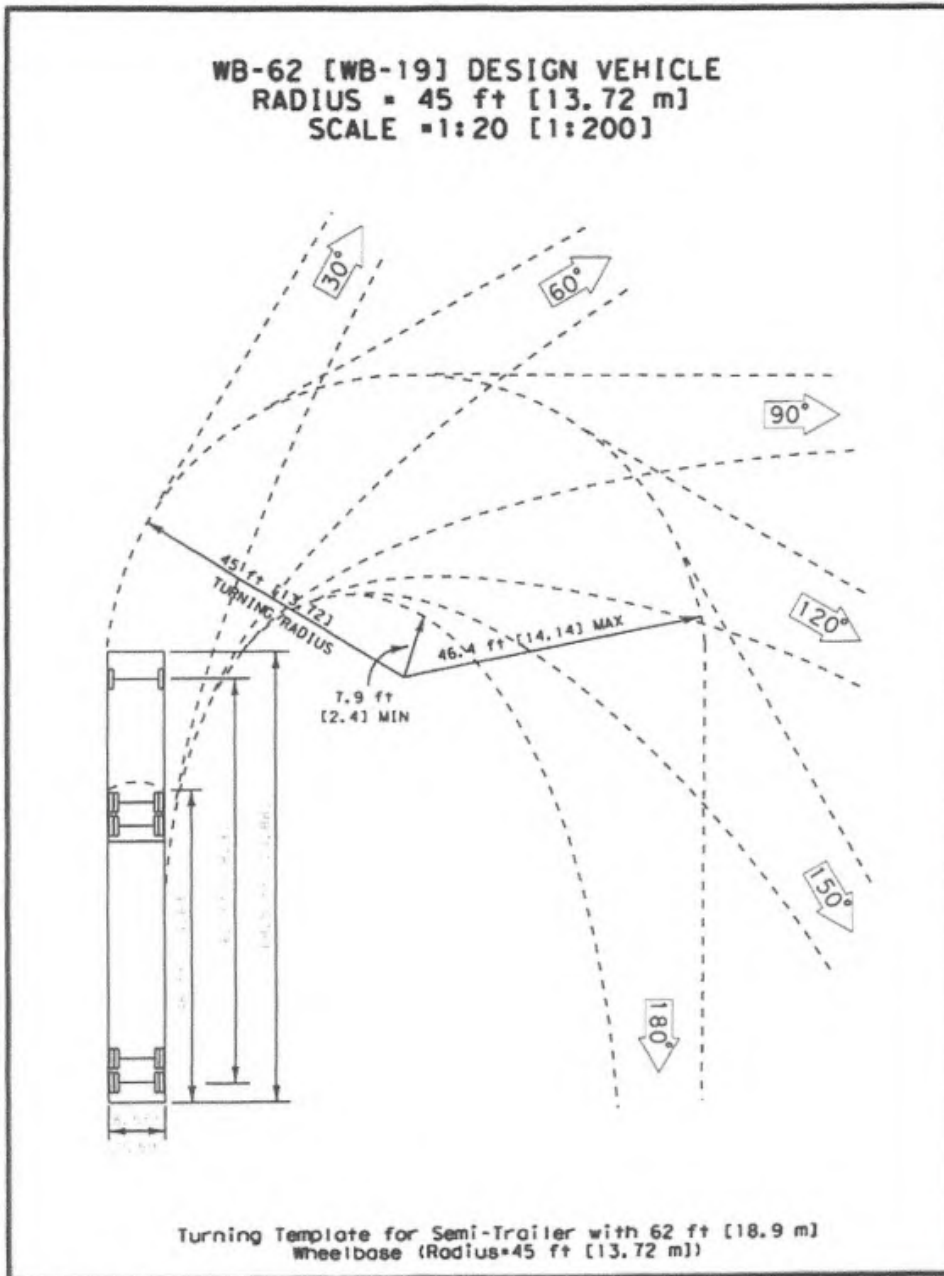


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

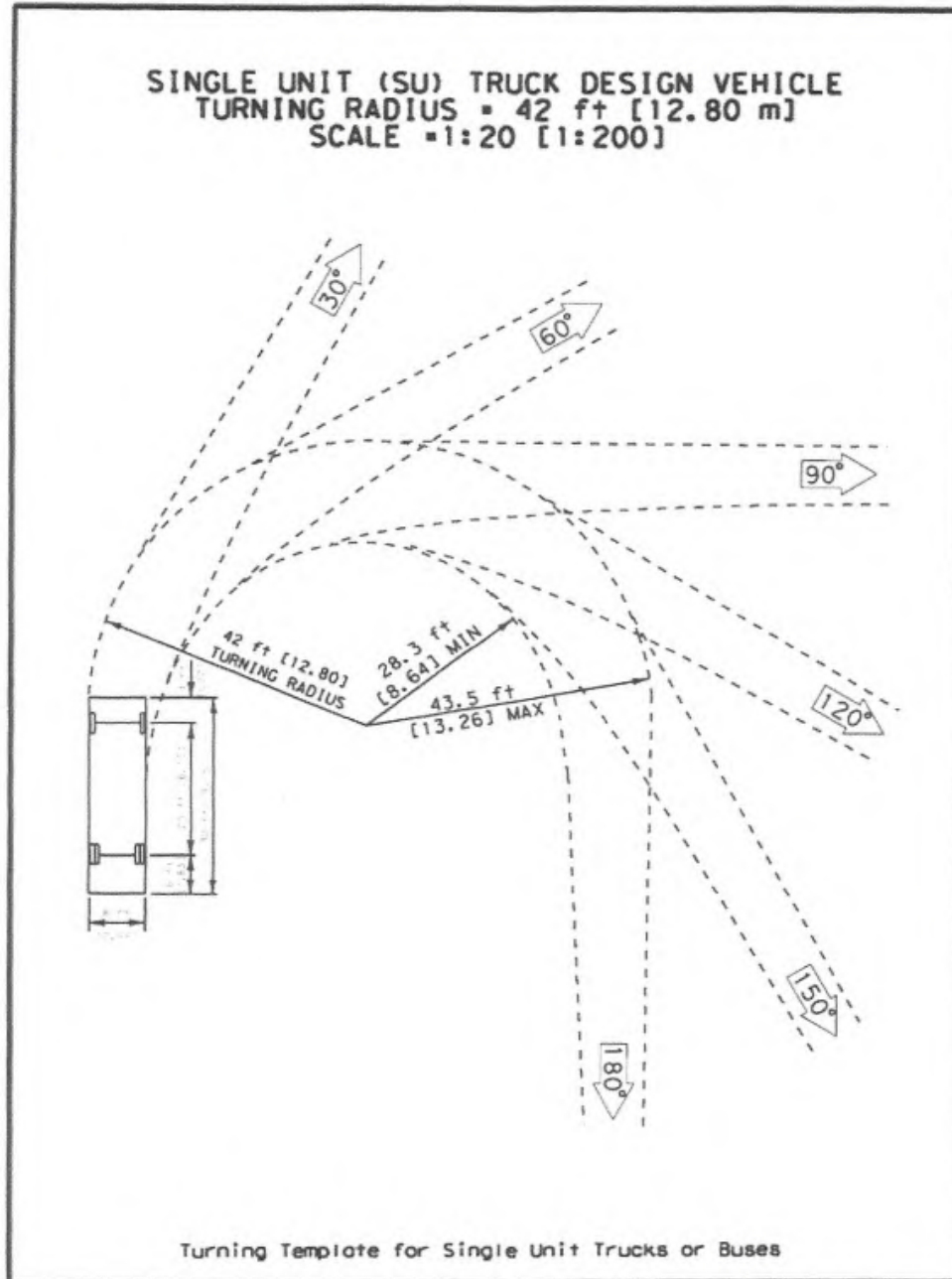


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

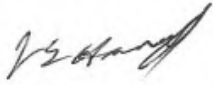
Section 17. TRUCK ROUTES

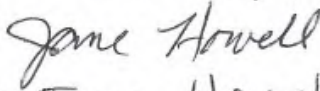
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

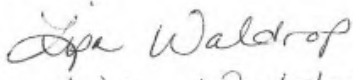
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

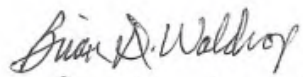
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

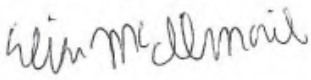
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SIGNATURE 
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SIGNATURE 
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ADDRESS 476 MODELAIRES DR.
EMAIL mcilmil1154@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

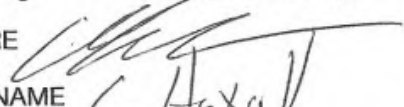

Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

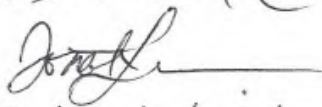

Chris Huxell
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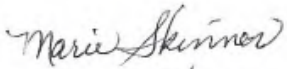

Jonah Lindeman
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SIGNATURE

PRINTED NAME

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EMAIL

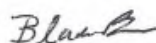

Marie Skinner
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SIGNATURE

PRINTED NAME

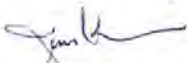
ADDRESS


EMAIL

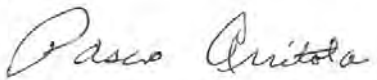

Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

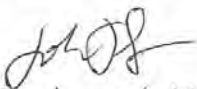
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SIGNATURE 
PRINTED NAME D. Dale Mammen
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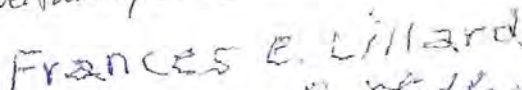
SIGNATURE 
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SIGNATURE 
PRINTED NAME Pasco Arritola
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SIGNATURE 
PRINTED NAME John Bazuta
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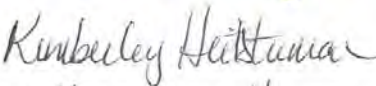
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SIGNATURE 
PRINTED NAME Andrea Galzow
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SIGNATURE 
PRINTED NAME Frances E. Lillard
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EMAIL

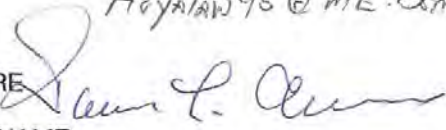
SIGNATURE 
PRINTED NAME Brent H. Smith
ADDRESS 410 Allium St
EMAIL smithbrent@gmail.com

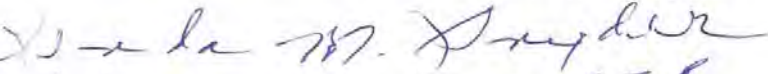
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

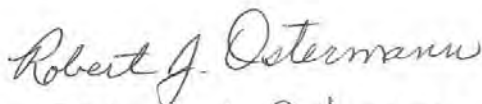
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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EMAIL kimheitstuman@hotmail.com


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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
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SIGNATURE 
PRINTED NAME
ADDRESS Lonnie L. ALLEN #41- 9637720
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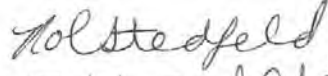
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire
EMAIL

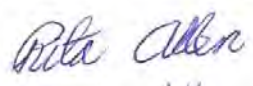
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

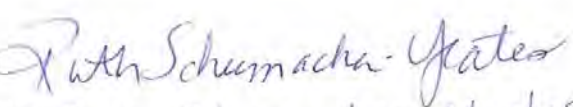
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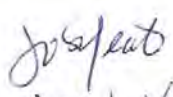
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SIGNATURE 
PRINTED NAME Jonathan D. White
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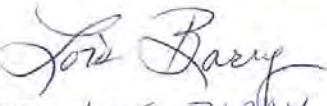
SIGNATURE 
PRINTED NAME Robin Stedfeld
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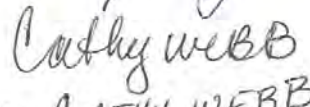
SIGNATURE 
PRINTED NAME Rita Allen
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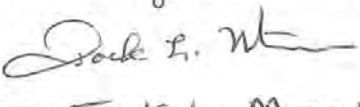
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
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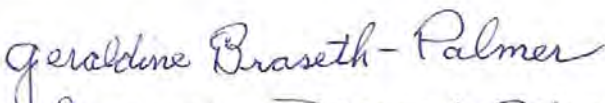

SIGNATURE 
PRINTED NAME JOHN YEATES
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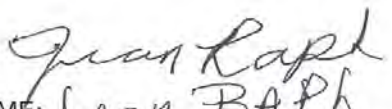
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SIGNATURE 
PRINTED NAME Lois BARRY
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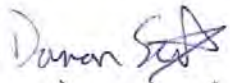
SIGNATURE 
PRINTED NAME CATHY WEBB
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SIGNATURE 
PRINTED NAME Jack L. Martin
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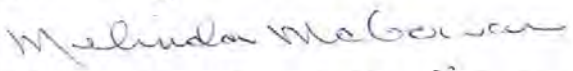
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
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EMAIL 


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PRINTED NAME Jean BAPH
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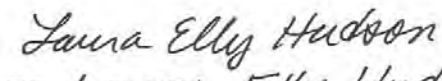
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PRINTED NAME Laura Elly Hudson
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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
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SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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SIGNATURE *Robert J. Sherer*
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SIGNATURE *Bert R. Frewing*
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SIGNATURE *Lindsay McCullough*
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
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SIGNATURE *Robin L. Maille*
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SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
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EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

August 18, 2019

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project; Draft Proposed Order May 23, 2019

Dear Chair Beyeler and Members of the Council:

In the application for the Boardman to Hemingway transmission line to the ODOE; THE APPLICANT IS IN VIOLATION OF ORDINANCE OAR 345-001-0010(55)- THE MAPPING OF THE B2H PROJECT IN LA GRANDE

In Exhibit C on page 4 Section 2. 2 Second Amended Project Order Provisions

The Second Amended Project Order includes the following discussion regarding Exhibit C: Maps shall indicate the "site boundary" as defined in OAR 345-001-0010(55). Maps shall provide enough information for property owners potentially affected by the facility to determine whether their property is within or adjacent to the site boundary. Major roads shall be named. IPC shall include maps drawn to a scale of 1 inch = 2,000 feet or smaller when necessary to show detail. The Department requests that IPC share GIS data for the proposed facility in a format that is compatible with current Department software programs; accurate GIS data will help streamline the application review process for the Department and reviewing agencies.

Maps shall clearly show the boundaries of the proposed corridor within which the transmission line would be constructed, and shall include familiar landmarks such as roads and existing power lines that reviewing agencies and affected landowners may use to identify the proposed route. Aerial photographs with all roads identified are helpful for public interpretation and review. The site boundaries of all proposed related or supporting facilities, including but not limited to access roads, temporary laydown areas, switching stations/substations, must also be identified. Maps showing access roads included as related or supporting facilities shall clearly depict where existing roads or road segments are proposed to be in the site boundary. Also, clearly identify the county and city jurisdictions in which facility components are proposed to be located. All county and city jurisdictions in which facility components are proposed to be located are appointed as SAGs by EFSC.

Idaho Power states that attachment C-2 contains a map-set organized by county that includes a series of detailed maps that are at a scale of 1 inch equals 1,000 feet. Project features shown include the Site Boundary, access roads, stations, communication station sites, and communication distribution lines within the Idaho Power Company (IPC) service area. Temporary project features are also shown, including structure work areas, multi-use areas, pulling and tensioning sites, and light-duty fly yards. (See attachment 1: Copy of pages (C4 & 5)

However, near La Grande the maps provided by Idaho Power do not show access roads to or from Multiple Use Areas and Pulling and Tensioning Sites. The maps provided in the application in C-2 do *not* clearly depict existing roads or road segments. Therefore the B2H application maps lack the detail that is required by the state of Oregon because the maps do not show the names of the streets. Without detailed maps property owners cannot tell how they will be directly affected by this project.

Our home is on Modelaire Drive and Modelaire Drive is listed as the main access road for La Grande. We also live within 294 feet from the site boundary for the Pulling and Tensioning Site. We have never received any correspondence from Idaho Power (this may be a violation of OAR 345-021-0010(1)(x)(E)) and our names do not appear on any of the lists that Idaho Power has provided in their application. The only information that we have to reference are the faulty maps in Idaho Powers application.

The application also states that “impacts from temporary road closures and construction activities are not anticipated to affect local communities because Project activities involving short-term road closures will occur in remote areas, away from housing and other developments”(U3.1.5 P25). This statement is not true in La Grande. The Google Maps (Attachment 2) clearly shows that the proposed B2H construction will be happening on our surface roads in multiple neighborhoods in La Grande.

The B2H project will be devastating to us and our neighborhood. We have already seen our property devalued. Our roads are nearly fifty years old and they were not built to carry the industrial size equipment to build the power transmission lines or the logging trucks that the roads will be used for. This proposed project will have a major impact on our lives as our neighborhood is mostly people over 65 or young families. The maps do not provide enough details for property owners to see that there are other roads in other neighborhoods that will be used to put in the transmission towers in the south hills.

The application states that “Surface streets within the city of La Grande may need to be used during construction to access portions of the project” (U2 P8). Nowhere in the application are the streets listed that may be used in La Grande. The roads listed for Union County in Table 7, Preliminary Routes (U2 P18) lists Foothill Road and city of La Grande surface Streets. The application omits that from the proposed Multiple Use Area near Foothill you would need to travel on Gekeler, Sunset, Modelaire, and Hawthorne to get to Idaho Power’s proposed Transmission Line access road in La Grande.

The application also forgot to mention that you cannot get to Modelaire without traveling on Sunset Drive which houses the Grande Ronde Hospital, La Grande High School, Central Elementary and Community Sports Complex .The Modelaire access road is also next to the Grande Ronde Hospital’s Heliport. Gekeler houses a park, two retirement complexes and seven churches. All emergency responders also use the route from Gekeler to Sunset to get to the hospital. None of this information can be gleaned from the maps or the verbiage that Idaho Power has supplied in their application because the names of the streets have been omitted from this application.

Idaho Power states that “Project traffic generated during construction is not anticipated to cause notable congestion or otherwise impact local communities” (U2 P20). Given that the application states that

“Construction of the new transmission line is anticipated to last at least 36 months, with multiple construction crews working simultaneously (U2 3.1.1.1) and that construction will generally occur between 7 a.m. and 7 p.m., Monday through Saturday (U2 page 16) it is impossible to believe that there will not be “notable congestion” within the neighborhoods in the South and East hills of La Grande.

Idaho Power’s application for the Boardman to Hemingway Power Transmission line contains multiple and obvious inaccuracies. Idaho Power did not provide aerial photographs with all roads identified to help the public interpret and review their application. Nor did they provide maps showing access roads that clearly depict existing roads so that the general public could determine how this project would affect them personally. The application has also omitted the names of the roads that will be used in La Grande.

Summary: La Grande maps lack the details required by the state of Oregon to meet ordinance OAR 345-001-0010(55). (See attachment 2: Maps from exhibit C-2 and Google maps that show more detail)

Therefore the Oregon Department of Energy Siting Council needs to deny Idaho Power’s application for the B2H transmission project due to the fact that the application violates OAR 345-001-0010(55).

Sincerely,



Signature

482 Modelaire Dr. La Grande OR 97850
Address

Jane Howell
Printed Name

d.janehowell@gmail.com
Email

In the application for the Boardman to Hemingway transmission line to the ODOE

THE APPLICANT IS IN VIOLATION OF ORDINANCE OAR 345-001-0010(55)
THE MAPPING OF THE B2H PROJECT IN LA GRANDE

Attachment One

Pages C4 and C5

Jane and Jim Howell

2.0 APPLICABLE RULES AND SECOND AMENDED PROJECT ORDER PROVISIONS

2.1 Site Certificate Application Requirements

Oregon Administrative Rule (OAR) 345-021-0010(1)(c) provides that Exhibit C must include:

(A) A map or maps showing the proposed locations of the energy facility site, all related or supporting facility sites and all areas that might be temporarily disturbed during construction of the facility in relation to major roads, water bodies, cities and towns, important landmarks and topographic features, using a scale of 1 inch = 2000 feet or smaller when necessary to show detail.

(B) A description of the location of the proposed energy facility site, the proposed site of each related or supporting facility and areas of temporary disturbance, including the total land area (in acres) within the proposed site boundary, the total area of permanent disturbance, and the total area of temporary disturbance. If a proposed pipeline or transmission line is to follow an existing road, pipeline or transmission line, the applicant shall state to which side of the existing road, pipeline or transmission line the proposed facility will run, to the extent this is known.

(C) For energy generation facilities, a map showing the approximate locations of any other energy generation facilities that are known to the applicant to be permitted at the state or local level within the study area as defined in OAR 345-001-0010 for impacts to public services.¹

2.2 Second Amended Project Order Provisions

The Second Amended Project Order includes the following discussion regarding Exhibit C:

Maps shall indicate the "site boundary" as defined in OAR 345-001-0010(55). Maps shall provide enough information for property owners potentially affected by the facility to determine whether their property is within or adjacent to the site boundary. Major roads shall be named. IPC shall include maps drawn to a scale of 1 inch = 2,000 feet or smaller when necessary to show detail. The Department requests that IPC share GIS data for the proposed facility in a format that is compatible with current Department software programs; accurate GIS data will help streamline the application review process for the Department and reviewing agencies.

Maps shall clearly show the boundaries of the proposed corridor within which the transmission line would be constructed, and shall include familiar landmarks such as roads and existing power lines that reviewing agencies and affected landowners may use to identify the proposed route. Aerial photographs with all roads identified are helpful for public interpretation and review. The site boundaries of all proposed related or supporting facilities, including but not limited to access roads, temporary laydown areas, switching stations/substations, must also be identified. Maps showing access roads included as related or supporting facilities shall clearly depict where existing roads or road segments are proposed to be in the site boundary. Also, clearly identify the county and city jurisdictions in which facility components are proposed to be located. All county and city jurisdictions in which facility components are proposed to be located are appointed as SAGs by EFSC.

¹ The Project does not include an energy generation facility, and therefore, OAR 345-021-0010(1)(c) is not applicable to the Project.

Exhibit C shall contain a table listing the approximate land areas for both temporary disturbance associated with construction and permanent footprint of structures associated with facility operation for each type of disturbance or structure. This information needs to be consistent with information provided in other exhibits.

(Second Amended Project Order, Section III(c)).

3.0 ANALYSIS

3.1 Maps Showing the Proposed Locations

OAR 345-021-0010(1)(c): Exhibit C: Information about the location of the proposed facility, including: (A) A map or maps showing the proposed locations of the energy facility site, all related or supporting facility sites and all areas that might be temporarily disturbed during construction of the facility in relation to major roads, water bodies, cities and towns, important landmarks and topographic features, using a scale of 1 inch = 2000 feet or smaller when necessary to show detail.

The location of the Proposed Route, alternative routes, the related or supporting facilities, and the areas that might be temporarily disturbed during the construction of the facilities are provided in Attachment C-1, Attachment C-2, and Attachment C-3 as follows.

- Attachment C-1 provides a map showing the location of the Longhorn Station. The scale of the map is 1 inch equals 1,000 feet.
- Attachment C-2 contains a map-set organized by county proceeding north to south showing the location of the Proposed Route. Each set of county maps includes a county overview map and a series of detailed maps that are at a scale of 1 inch equals 1,000 feet. Project features shown include the Site Boundary, access roads, stations, communication station sites, and communication distribution lines within the Idaho Power Company (IPC) service area. Temporary project features are also shown, including structure work areas, multi-use areas, pulling and tensioning sites, and light-duty fly yards.
- Attachment C-3 contains a map-set showing the alternative routes. This map-set is organized by alternative proceeding north to south and is at a scale of 1 inch equals 1,000 feet.

3.2 Description of the Proposed Locations

OAR 345-021-0010(1)(c)(B): A description of the location of the proposed energy facility site, the proposed site of each related or supporting facility and areas of temporary disturbance including the approximate land area of each. If a proposed pipeline or transmission line is to follow an existing road, pipeline or transmission line, the applicant shall state to which side of the existing road, pipeline or transmission line the proposed facility will run, to the extent this is known;

The Project will occur on federal, state, and private lands in five counties in Oregon and one county in Idaho. The description of the Project contained herein is limited to the Project features located in Oregon. Table C-1 describes the ownership of the lands where the Proposed Route and alternative routes will be located.

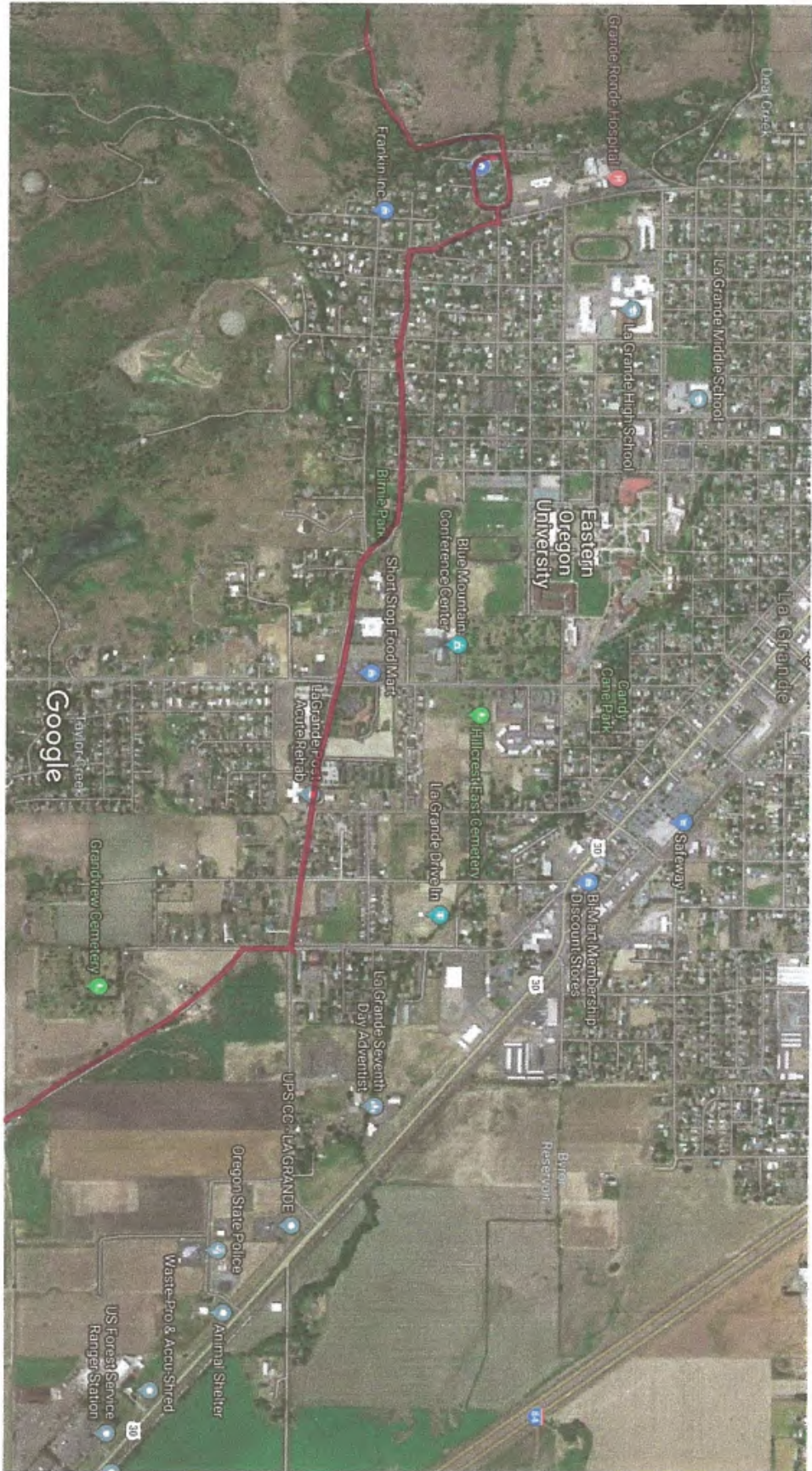
In the application for the Boardman to Hemingway transmission line to the ODOE

THE APPLICANT IS IN VIOLATION OF ORDINANCE OAR 345-001-0010(55)
THE MAPPING OF THE B2H PROJECT IN LA GRANDE

Attachment Two

Maps from exhibit C-2 and Google maps that show more detail

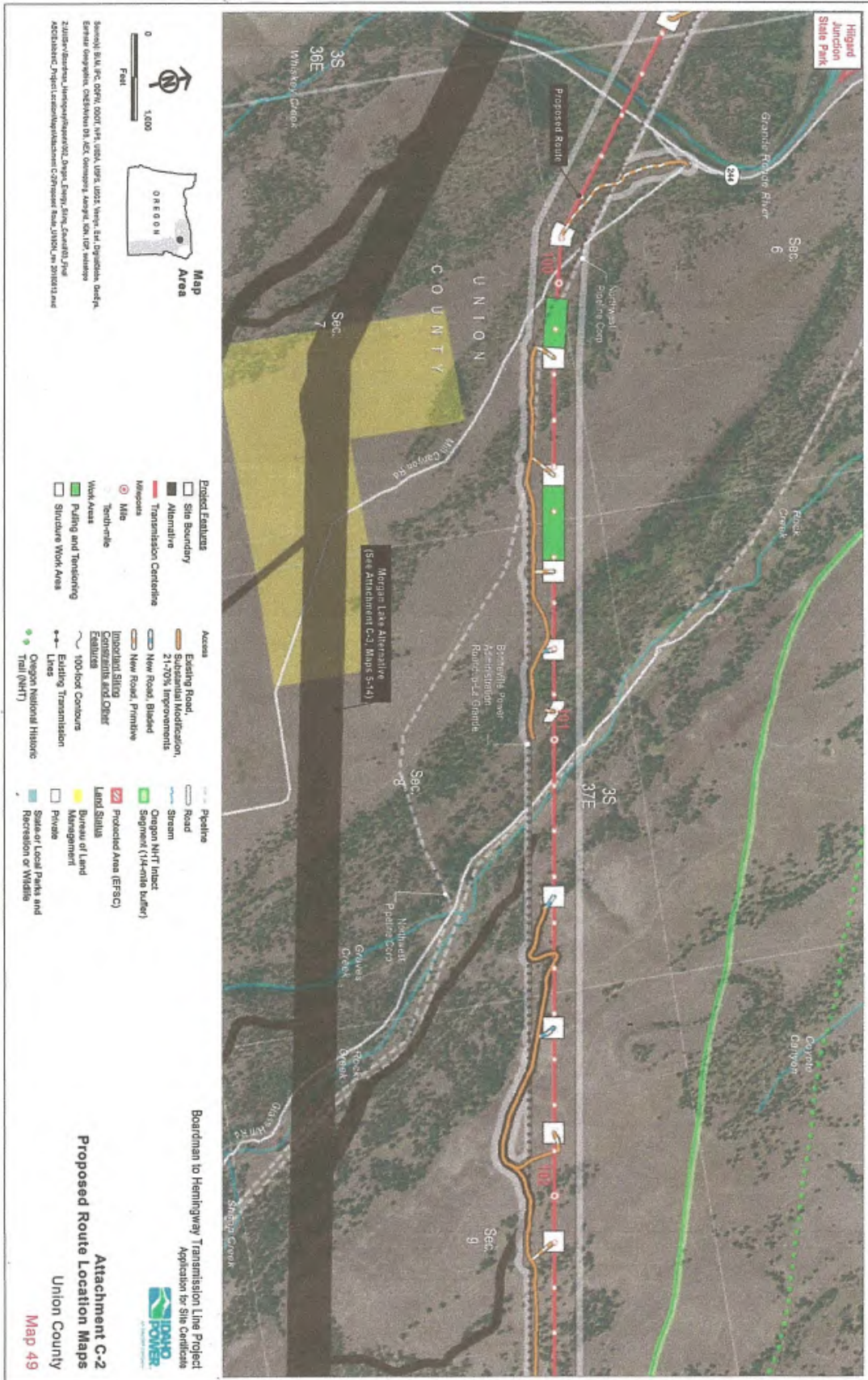
Jane and Jim Howell



Route from MUA - U L to Midway
across road
show roads at 1000 ft

Footwall
Baker
Summit
Middle
Hawthorne

Imagery ©2019 DigitalGlobe, State of Oregon, Map data ©2019 Google 1000 ft



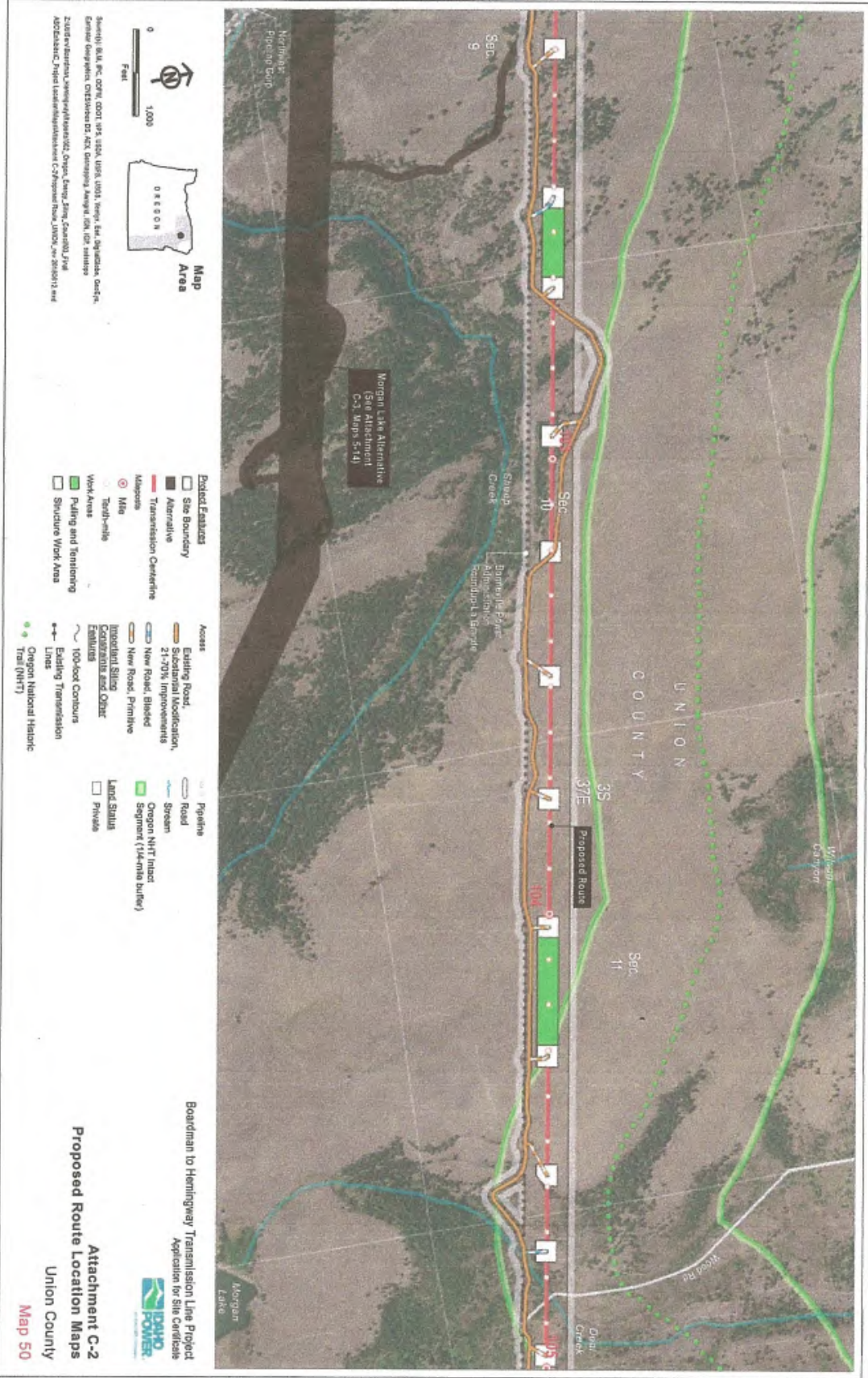
Examine - at map with no detailed notes

①

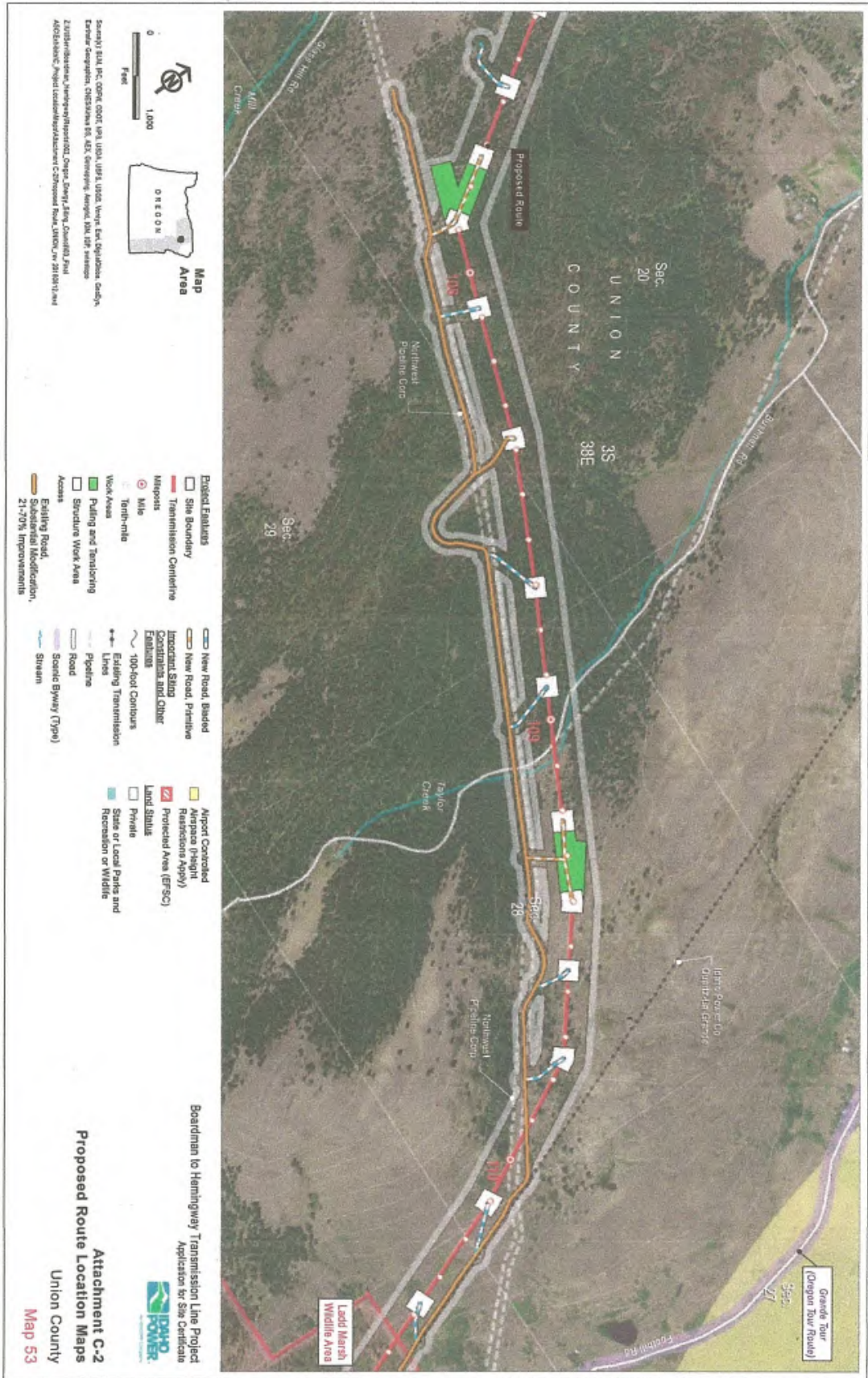
Boardman to Hemingway Transmission Line Project
 Application for Site Certificate

Attachment C-2
Proposed Route Location Maps
 Union County
 Map 49

*Pulling and Sensing Station
 No road - No shut down*

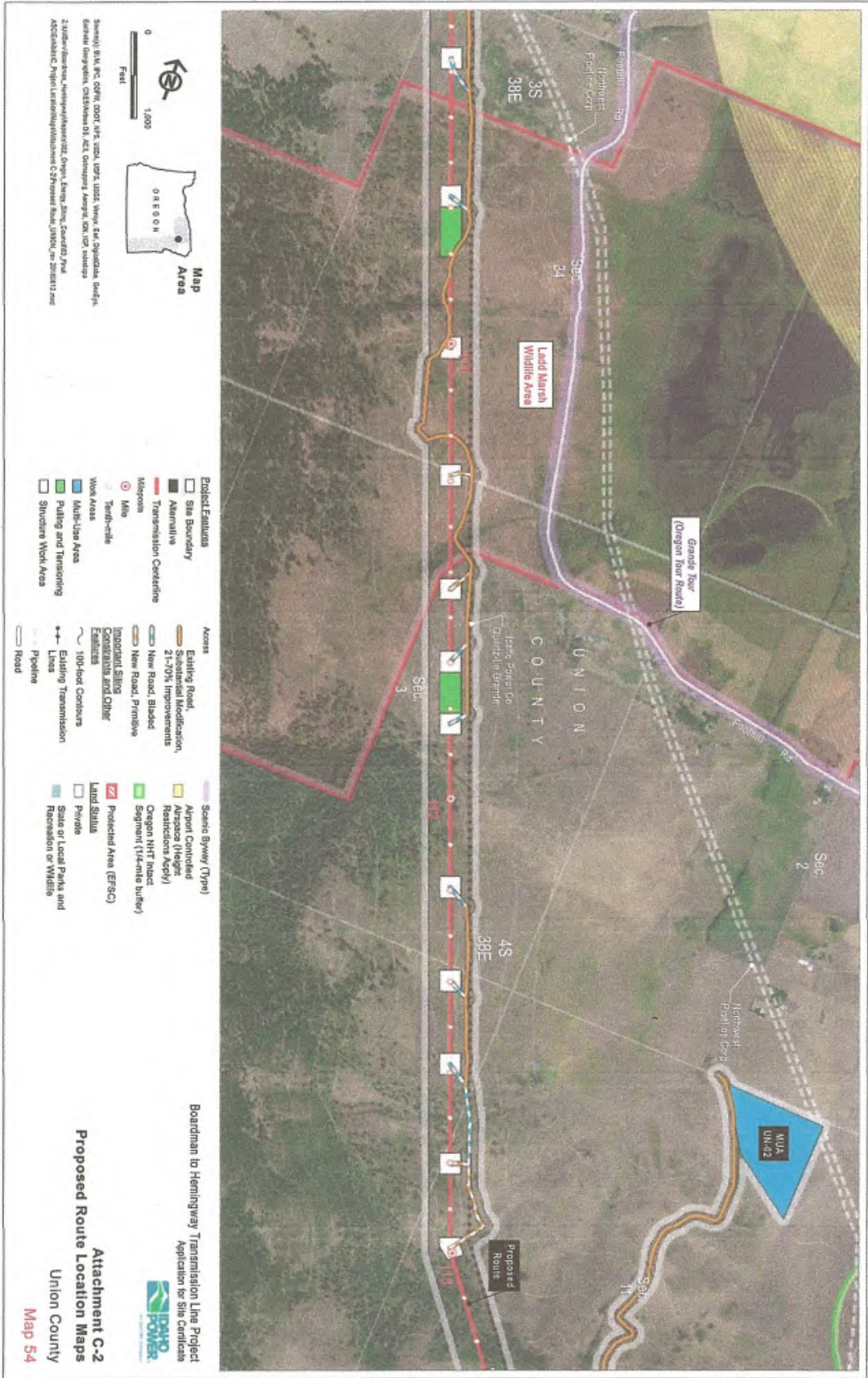


(2)



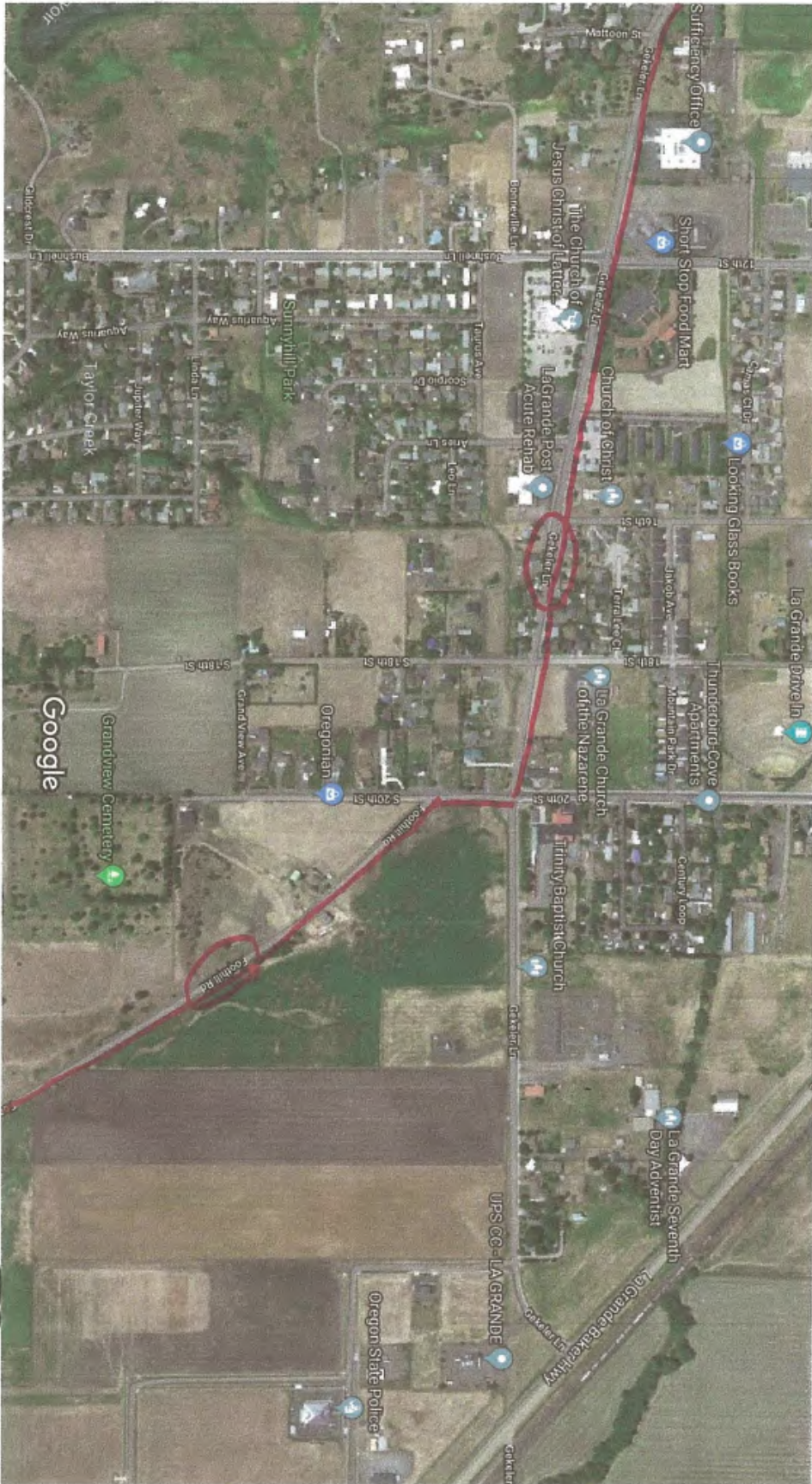
3

*Multi-Use Area UN-02
 No roads - no street names*



(4)

Google Maps



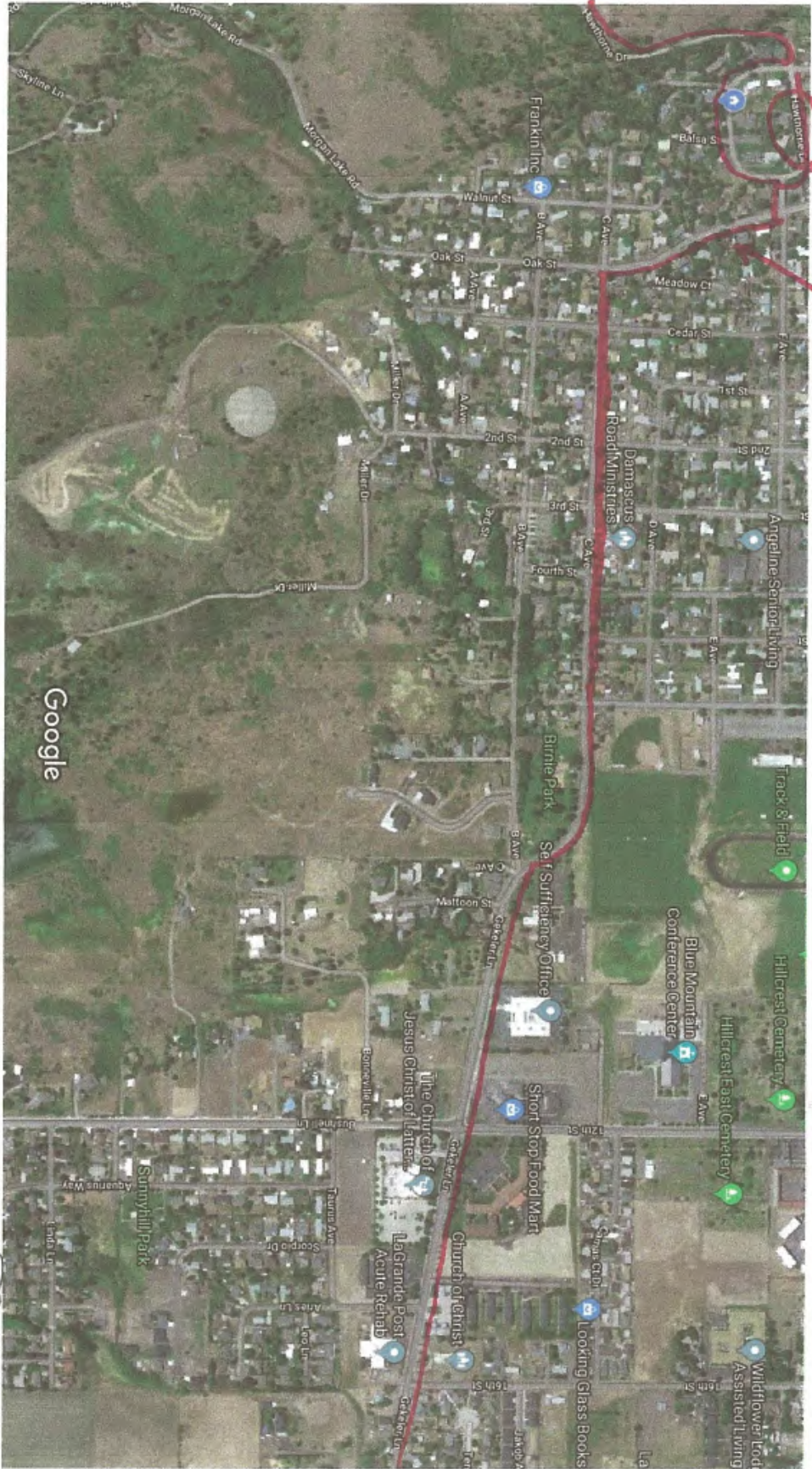
*street marker do not
show until 500 ft
2 people to get route
know Fossil Rd to Houston*

Imagery ©2019 DigitalGlobe, State of Oregon, Map data ©2019 Google 500 ft

#1

Google Maps

dmw



Imagery ©2019 DigitalGlobe, State of Oregon, Map data ©2019 Google

500 ft

2

Google
Maps



Imagery ©2019 DigitalGlobe, State of Oregon, Map data ©2019 Google 200 ft

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - **Drill site 95/3 and 95/4 on unstable and steep slopes**
345-022-0020

(c) ...*The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...*

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes presenting design and construction challenges.*” IPCs stated original intention to the EFSC was the following: “Using

topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

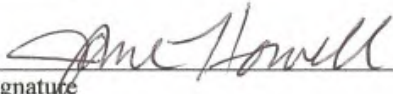
The area surrounding the drill site **95/3 and 95/4** is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

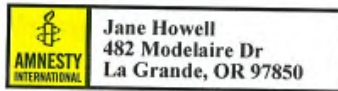
Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission "facility." While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,


Signature

JANE HOWELL
Printed Name:



References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Union County, Oregon, Union County Emergency Operations Plan – Hazard Analysis. Updated – 6/30/2016.

August 1, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

1. Idaho Power failed to provide noise estimates for the lay down areas and incorrectly determined they were not required to do so.
2. Idaho Power failed to include all sources of noise as required by OAR 340-035-0035 in noise modeling done on all sites which were not previously used.

References:
OAR 340-035-0035

The exception to requiring noise impacts from sources listed in subsections (5)(b) - (f), (j), and (k) does not apply to developments on sites not previously used. When a lay down area, or other development is located on a site not previously used, the rule states "Sources exempt from the requirements of section (ii) of this rule which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The applicant must provide noise monitoring results for all lay down areas or other areas where these types of noise will occur in areas not previously used.

Site Condition needed:

The applicant will complete noise modeling which includes the noise sources identified in OAR 340-035-0035 for all areas where development will occur on sites not previously used. The uses are contained in OAR 345-035-0035(5)(b) - (f), (j), and (k).

For any site exceeding the noise standards, the developer will obtain a waiver from the property owner prior to the start of construction, or establish through all available means of mitigation that the location will not exceed the noise standard.

When applying another agency's rules, the Oregon Department of Energy and Energy Facility Siting Council do not have the authority to make unique interpretations of common terms like "infrequent". The Oregon DEQ as the agency responsible for the rules must

provide any interpretation if indeed one is needed beyond the dictionary and common use of the term.

Noise surveys have not been completed, and it has not been established that the project will be able to meet the requirements of the standard, therefore, the site certificate must be denied.

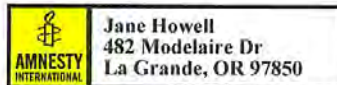
Sincerely,



Signature

Printed Name: Jane Howell

Mailing address:



August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

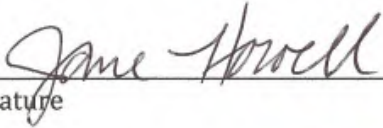
Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

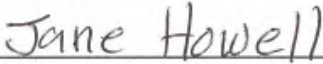
In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.

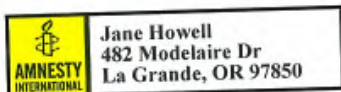


Signature



Printed Name

Mailing Address:



Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,



August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

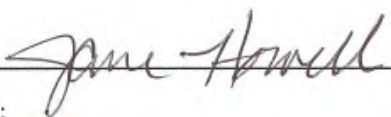
Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.


The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,


Name:

Address:

 Jane Howell
482 Modelaire Dr
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

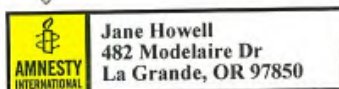
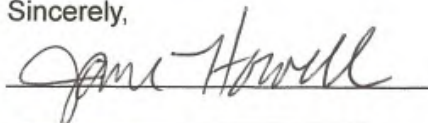
Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,



Signature

Printed Name:
Mailing Address:

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Vial EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

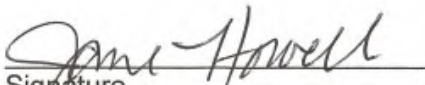
Dear Chair Beyeler and Members of the Council:

For the Boardman to Hemingway Transmission Line, Idaho Power failed to provide noise estimates for the lay down areas and other previously unused sites with impacts from items contained in OAR 340-035-0035(5)(b)-(f), (j), and (k). The developer incorrectly determined they were not required to do so.

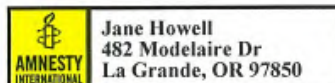
The exception to requiring noise impacts from sources listed in subsections (5)(b) - (f), (j), and (k) does not apply to developments on sites not previously used. When a lay down area or other development is located on a site not previously used, the rule states "Sources exempt from the requirements of this rule which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." (OAR 340-035-0035(1)(b)(B)(iii)) The applicant must provide noise monitoring results for all lay down areas or other areas where these types of noise will occur and the area was not previously used.

The applicant has not provided information necessary to determine compliance with the noise standard or if conditions can be included which would make them meet the noise standard.

Sincerely,


Signature

Printed Name:



Mailing Address:

August 10, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

I am a long time La Grande resident. I have always treasured Morgan Lake as an exceptional part of my enjoyment of this area, and I was pleased to see that the applicant apparently agrees with me:

Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities per OAR 345-021-0010(1)(i)(A) Attachment T-3, Table T-3-1 (p. T-13).

I certainly agree with this part of the application:

Page 146 (T-4-47) "The landscape character is natural appearing. Scenic integrity is high as the human developments are harmonious with the landscape," but I can't imagine how pine trees no taller than 80' are supposed to "... block views of the towers from most locations in the park." p. 49 (T-44)

I don't see any photos or graphics that support that conclusion. Is it so just because Idaho Power says it's so?

Because I have visited Morgan Lake many times over the years, I was surprised by the incomplete and thus inaccurate description of Morgan Lake Park:


Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, with one lake. Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, right beside it, covers 27 acres.

Twin Lake is basically a wet lands which blooms with beautiful yellow water lilies in the spring. It is completely undeveloped. The bird population, including ducks, geese, osprey, cormorants, and nesting bald eagles, as well as other wildlife, enjoys this special sanctuary.

I have to wonder how Idaho Power, which claims to have carefully surveyed all the areas the transmission line might impact, could have omitted such an important feature of the Park. How many other errors are in the application? I urge EFSC to require documentation to support all of applicant's conclusions.


signature

Name:

	Jane Howell 482 Modelaire Dr La Grande, OR 97850
---	--

Address:

August 10, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

Morgan Lake Park, analyzed as part of the Morgan Lake Alternative - (Attachment T-3, Table T-2, p. T-3-2; Table T-3-1, p. T-13) and Summary of Impacts, pp. T-27-28, 43, (T-4-51-56), inaccurately describes features of the park itself and severely underestimates the permanent impact of development on this unique city park.
See OAR 345-021-0010 (1) (T) (A) (B) (D) & OAR 345-022-0100

Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities per OAR 345-021-0010(1)(t)(A) Attachment T-3, Table T-3-1 (p. T-13)

Page 62 (T-57) refers to “extensive work in the siting study of the Morgan Lake Alternative.” That is doubtful because it is completely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. In their application, Idaho Power omits any references to Twin Lake.

Page 156, (T-4-6) purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

2) b. A specific example of unsupported conclusion:

Page 145 (T-4-46) Baseline condition: “... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users...”

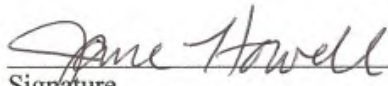
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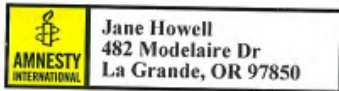
Page 49 (T-44) “Vegetation will block views of the towers from most locations in the park.” In reality, one tower would dominate the entrance to the park, all 130’ in plain view. Within the Park, the trees bordering the lake are no more than 80’ high. 130’ transmission towers will rise more than 50’ above those trees, dominating the current landscape.

Idaho Power does not provide a graphic representation of Morgan Lake Park, with the accurate height of existing trees, and elevation of towers above the trees. It simply concludes that the inescapable sight of 500 kV transmission lines and towers around a natural lake setting will have "no significant impact" on Morgan Lake Park.

This is the park whose baseline "should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users" [because 50 years ago, no one ever imagined anything larger than a human being, might ever intrude]..."

I urge the Commission to deny this application for a site certificate until each comment submitted and sent to the Commission by August 22 has been thoroughly analyzed, and Idaho Power has provided credible evidence to support each of its conclusions of "no significant impact."


Signature



12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

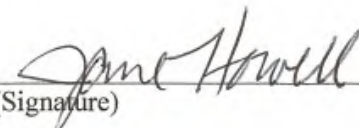
As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.


Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.


(Signature)

Name:

	Jane Howell 482 Modelaire Dr La Grande, OR 97850
---	--

Address:

August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

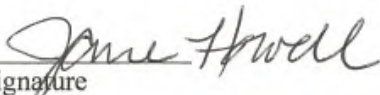
I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

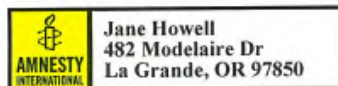
Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**



Signature

Printed name:

Mailing address:



Email address:

phone number: (optional)

d.janehowell@gmail.com

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I doubt it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

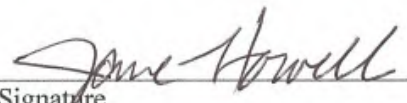
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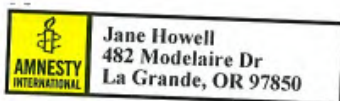
The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power's ASC. If the IPC surveying and engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it's disquieting to imagine their difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake routes, rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by a individuals whose remote properties and summer cabins would have been impact by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASCand DPO which will be addressed in a separate comment.


Signature



August 14, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

I appreciate the opportunity to comment on the B2H Draft Proposed Order. The Oregon National Historic Trail will be significantly affected by the B2H Transmission Line.

The Draft Proposed Order identifies significant impacts to the Oregon Trail in several Exhibits, including Exhibit C: Property Location and Maps; Exhibit L: Protected Areas; Exhibit R: Scenic Aesthetic Values; Exhibit S: Cultural Resources; Exhibit T: Recreational Facilities; and Exhibit X: Noise.

B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, **except at the Oregon Trail Interpretive Center at Flagstaff Hill.**

The B2H Transmission Line should be buried for approximately 2 to 2 ½ miles to comply with the exhibits indicated above. Idaho Power has from the early years refused to do any significant analysis for this option. IPC uses cost as the reason for stating that undergrounding is not feasible. Cost is not a specific standard, and costs are the responsibility of the Oregon Public Utilities Commission during rate considerations. EFSC has determined that IPC has the Financial ability even if some partners choose to not participate, so reasonable cost should not be a determining factor for EFSC.

EFSC should refuse to approve the Draft Project Order for the following reasons:

1. Does not comply with Noise Standards as no measurements were done at the Oregon Trail viewpoint or walking trails endpoint near milepost 146. Perhaps not a "Noise Sensitive Property," in the context of residential sleeping areas; however, certainly for tourists and visitors to the Interpretive Center and hiking trails noise will be disturbing. Map 23 in Attachment X-1 does not even show the Oregon Trail.
2. Within OAR 345-022-0040 Protected Areas and ODEQ standards 340-035-0000-0100, this area should have been monitored and modeled as a Noise Sensitive Property and was not.
3. Does not comply with Scenic Values from the Blue Mountains Parkway and Oregon Trail Interpretive Center. The OR 86 encourages drivers to STOP and read interpretive signs, so viewer perception and resource change cause significant decrease of scenic values. IPC says no significant impact.
4. The DPO does not comply with Exhibit L Protected Areas. The BLM ACEC at Flagstaff Hill has not considered undergrounding for the protection of the Oregon Trail. No analysis found the pristine, Class 1 swales of the Oregon Trail within the ACEC located at: Lat 44.813762 Long -117.750194 or 44° 48' 48.26"N 117° 75' 57.97"W. IPC proposes to build a new constructed road over the Oregon Trail in the area identified in the location above.

5. The DPO does not meet the standards required for Exhibit T Recreational Facilities, OAR 345-022-0100, especially at the Flagstaff Hill interpretive center, because of:
 - a. It is a BLM ACEC area managed for public tourism
 - b. It is the single most visited tourist facility in Baker County
 - c. The quality of the facility is outstanding
 - d. There is no other place where the Oregon Trail can be seen and interpreted.
6. The cost estimates of IPC do not compare with those of the *Edison Electric Institute*, January 2013 publication "Out of Sight, Out of Mind, An Updated Study of the Undergrounding of Power Lines." This article suggests that for 2.5 miles of rural undergrounding, the cost will be \$67,500,000. This is almost half the IPC estimate.

The Oregon Trail along the route of the B2H has the most damaging effects to its critical historic elements. Once the Trail is gone it cannot be reconstructed or mitigated back to life. Once gone, always gone. The only easily accessible public facility in Oregon is the Flagstaff Hill Interpretive Center near Baker City. The B2H must be buried to preserve this important site.

Considering the reasons above and the unconscionable desecration of our national treasure, the Council Must Deny the site certificate for the Boardman to Hemingway Transmission project.

Thank you,


Signature

Printed Name:

JANE HOWELL

Mailing Address:



August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I respectfully request that this letter protesting issuance of a Site Certificate for the proposed Boardman to Hemingway Transmission Project be entered on the record.

Specifically, the applicant has failed to acknowledge the presence of a Federal and State-listed, Threatened species, and has failed to identify Category-1, Critical Habitat.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species, also listed as Threatened by USFWS. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation. The applicant has failed to comply with these requirements!

The Grande Ronde river watershed contains a well-documented population of Bull Trout. By statute, wherever a portion of a watershed contains a Threatened or Endangered species, the entire watershed is under federal protection. The Grande Ronde river watershed encompasses the entirety of Union county, and the majority of Wallowa county. As evaluated in the DPO, ASC Exhibit P, suitable habitat used by state-listed Threatened and Endangered species is designated pursuant to ODFW's Habitat Mitigation Policy, and EFSC's Fish and Wildlife Habitat standards, as Category-1 Habitat, where any impact, direct or indirect is prohibited. There is NO mitigation for Category-1 Habitat!

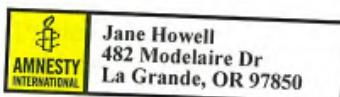
The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited, the magnitude of impact becomes irrelevant.

The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, as noted above.

In view of the fact that sufficient recovery of the Bull Trout population to remove its Threatened status is reliably estimated to be a matter of decades, issuance of a **Site Certificate should be denied, with prejudice!**

Sincerely,

Jane Howell



August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Sent Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I request that my letter protesting issuance of an Oregon Site Certificate for the currently proposed Boardman-to-Hemingway Transmission Project (B2H Project) be entered into the permanent written record. I also request response to, and resolve of, the issues I raise herein.

Specifically, the applicant, Idaho Power (primary) has failed to acknowledge, and as a result, address fully the presence of a Federal and State-listed, Threatened species. It has also failed to identify and address the effects of the proposed action on, not only the listed species, but the Category-1, and Federal designated Critical Habitat. A co-sponsor of the project, Bonneville Power administration, is also a party to the Federal Columbia River Power System (FCRPS) Biological Opinion, requiring them to promote conservation and recovery of Federally-listed, under the Endangered Species Act, salmon and steelhead in the interior Columbia Basin.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species, also listed as Threatened by USFWS. Similarly, the DPO only gives brief identification of federally listed Mid-Columbia River and Snake River steelhead, and Snake River spring/summer and fall Chinook salmon. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation.

Compliance with the federal Endangered Species Act (ESA) requires identification and address of the effects of the proposed action through ESA section 7(a)(2) consultation with the NMFS (anadromous fish species) or USFWS (resident fish species). ESA section 7(a)(1) also requires that federal actions (the BLM EIS/permitting) are implemented in a manner to promote the recovery of listed species. The ESA consultation process requires that the action agency (in this case BLM with USFS input for their lands), identify and speak to the effects of the action, both on the 'animal' AND on the designated critical habitat. The DPO does none of this, hence fails this requirement. Additionally, the DPO does not adequately address the adverse impacts to Federally designated critical habitat (DCH). DCH for Snake River spring/summer Chinook salmon is identified as "all areas with historical presence", and is NOT found only where they exist today. DCH ESA determinations of 'may effect' are linked to the standing PACFISH riparian habitat conservation areas (buffers) on both BLM and USFS lands. This equates to a 300-foot buffer on main rivers, and a 150-foot buffer on perennial tributaries (100-foot buffer on intermittent streams). The DPO speaks to only stating there will be no roads below 'ordinary high-water mark'. This in no uncertain terms addresses the Primary Constituent elements of the DCH for salmon OR steelhead.

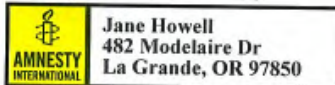
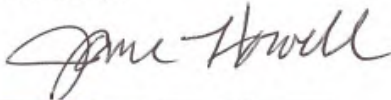
The applicant has failed to comply with both federal and state requirements to address adverse effects of the proposed action on identified threatened (state or federal designation) fish species and their habitats!

The Grande Ronde River watershed contains a well-documented population of Bull Trout, Snake River steelhead, and Snake River spring/summer Chinook salmon. By state statute, wherever a portion of a watershed contains a Threatened or Endangered species, the entire watershed is reviewed for its potential impacts to those species under federal protection. The Grande Ronde River watershed encompasses the entirety of Union county, and the majority of Wallowa county. As evaluated in the DPO, ASC Exhibit P, suitable habitat used by state-listed Threatened and Endangered species is designated pursuant to ODFW's Habitat Mitigation Policy, and EFSC's Fish and Wildlife Habitat standards, as Category-1 Habitat, where any impact, direct or indirect is prohibited. There is NO mitigation for Category-1 Habitat! And given the DPO does not address federal ESA consultation requirements, it too, is out of compliance and undercutting the purpose of this federal law.

The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited for Cat-1 Habitats, the magnitude of impact becomes irrelevant, rather, not lawful. Hence, the applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, and the Idaho Power's B2H proposed action's permit, being not in in compliance with state nor federal protected species laws, should be denied.

In view of the fact that sufficient recovery of the area's Bull Trout, SR-steelhead, and SR s/s Chinook salmon populations and their down-listing from its Threatened status is reliably projected to be a matter of decades, and especially with the current and projected compounding effects of climate change, issuance of a **Site Certificate by the State of Oregon should be denied, with prejudice!**

Sincerely,



August 18, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

B2H EFSC FAILURE TO SURVEY ACCESSIBLE AREAS FOR NORTHERN GOSHAWK AND AMERICAN THREE-TOED WOODPECKER, FAILING TO PROVIDE CURRENT INFORMATION, AND FAILURE TO COMPLETE SURVEYS IN ACCESSABLE AREAS.

The developer indicates that reasons for incomplete surveys was because the landowners would not give permission, timing conflicts, or the need to cross parcels not approved to access the area. The applicant failed to survey 287 locations. Many are located along the applicant's "preferred option". In fact, it appears that no surveys were performed from Mile Post 95 to Mile Post 115 which is virtually the entire length of Idaho Power's preferred alternative near the city of La Grande. There are also many locations from approximately Mile Post 95 to Mile Post 105 which are accessible, but have not been surveyed. See Figure P1-1, Page P1-II of application.

Literally 1/3 of the required surveys have not been completed, and the surveys which were completed were done in 2011 and 2012. The limited additional surveys done in 2016 did not include American three-toed woodpeckers which are listed as sensitive in the analysis area. The developer is proposing no additional surveys be performed. The developer provided misleading information regarding the surveys when they listed in Figure P1-1 that surveys were completed in 2016. Only a small area was surveyed in 2016 and not for both species. In addition, none of the areas where the alternate route exists in Union County were surveyed. The applicant is proposing that a site certificate be issued based upon these dated, minimal surveys with no new surveys being conducted.

The lack of surveys in the areas near Ladd Marsh is very disturbing. There is the potential for both these bird species to be present in the area. It is part of the Survey Area, however, there are practically no surveys along the proposed line. There is no basis for failing to complete surveys on all areas that can be accessed. This project was initiated over 10 years ago. Completed surveys should have been provided in the application, not 2/3 of them. The applicant has failed to comply with the requirements of OAR 345-021-0060 regarding completion of surveys and cannot be found to be in compliance with OAR 345-022-0060.

The developer is proposing no additional surveys. The Site Certificate cannot be issued absent the developer providing current surveys of accessible areas. There is no exemption allowing a developer to provide no current information and no determination can be made regarding eligibility absent any reliable information regarding impacts to these protected birds. This material needs to be in the application prior to the Site Certificate being issued.

Signature/name *Jane Howell*
Address: *482 Madeline Drive
La Grande OR 97850*

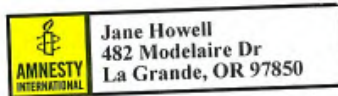
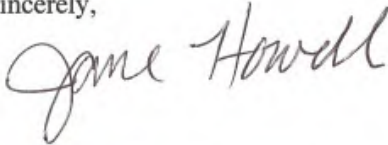
early stages of construction, such as ground disturbance for roads and right-of-way and foundation preparation. In (d.) bond or letter of credit amendments should be based upon qualified appraisal.

ADDED CONDITION #2: IPC will contract with a qualified construction appraiser to determine amount of construction completed at each six (6) month period. This amount will be used for bond or letter of credit adjustment if the amount is equal or more than \$250,000 from straight line formula.

Exhibit W Retirement and Financial Assurance Condition 2: A bond or letter of credit purpose, is to protect the public from the RISK of not having the site restored to a useful non-hazardous condition. EFSC is recommending that the Council approve the assumption that the risk to the public is ZERO (0) for 50 years, then remain under-insured for the next 50 years. If EFSC and IPC feel that the risk is zero, then the cost of the bond should be low. The risk should be moved to the bank, not forced upon the public. The fact that it may have an operating life of 100 years does not remove the risk that it is there and would need removal and ROW recondition.

ADDED CONDITION #3: On the date that the facility is placed in service, the bond or letter of credit will be set at the final appraised amount of restoration. This amount will be adjusted, by qualified appraisal, at least every 5 years.

Sincerely,



August 18, 2019
insert date

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via Email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the B2H Transmission Project 9/28/2018; DPO 5/23/2019

Dear Chair Beyeler and Members of the Council:

My comment is about the blasting that would likely be required during the construction phase of the B2H line near MP 106—108 of the IPC-preferred Mill Creek route. Although the application does not specify where blasting will occur, *Attachment G-5 Framework Blasting Plan* states: "Blasting may be needed in certain areas with rocky terrain to excavate tower footings, prepare station pads, and to construct access roads."

The relevant standard is the 345-022-0020 Structural Standard:

"(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility;"

My impression from reviewing the application is that the applicant has not fully considered the impacts of blasting on the nearby unstable slope in a populated area of La Grande, Oregon. The map on page 169 of *Exhibit H Geological Hazards and Soil Stability*, shows the B2H line at MP 106—108, where it is within about 2500' of a populated "Unconsolidated Sediments" zone (labeled Qf) and then crosses a "Landslide Deposits" zone (labeled Qls) near MP 108.

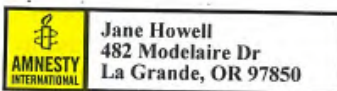
The application also mentions the slope instability in a small part of this area, on page 112 of *Exhibit H – Attachment H-1 Appendix B Soils Data Tables and Maps*:

"One of the landslides mapped by Schlicker and Deacon (1971), not included in SLIDO, intersects the IPC Proposed Route between towers 106/3 and 106/4. Based on review of topography and aerial photographs, this mapped landslide may impact the proposed work areas around tower 106/4. A field reconnaissance of this area should be performed as part of the geotechnical exploration program."

My concern is more about the construction process than about the integrity of the towers after construction. The application identifies the problem in general but provides no detail about the blasting or about the potential effects on nearby houses in an area that the City of La Grande designates as a "Geologic Hazard Zone." We know that each tower footing will require a hole 30—50' deep, and that the bedrock underneath the line at MP 106—108 will almost certainly require blasting for efficient excavation. The application does not address this concern, and the proposed construction is simply too close to a populated area to mitigate the risk of damage to homes. The application does not comply with the relevant standard.

Sincerely,

Jane Howell



ESTERSON Sarah * ODOE

From: Jane Howell <d.janehowell@gmail.com>
Sent: Thursday, August 22, 2019 3:18 PM
To: B2H DPOComments * ODOE
Subject: B2H Attachment from Jane and Jim Howell
Attachments: final Idaho Power's Motives.pdf

Please copy and give the following attachment to Chairman Beyeler and Members of the Council.
Thank you!
Jane

Energy Facilities Siting Council
 c/o Kellen Tardaewether, Senior Siting Analyst
 Oregon Department of Energy
 550 Capitol St N.E.
 Salem, OR. 97301

August 20, 2019

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project; Draft Proposed Order May 23, 2019

Information in this document is from the Second Amended Project Order Provisions

Dear Chair Beyeler and Members of the Council:

In the application for the Boardman to Hemingway transmission line to the ODOE I find Idaho Powers logic and methods to be questionable. As you are the body determining the outcome of this project I would like you to consider the following:

Idaho Power's Estimated Forest Clearing for Proposed B2H Project

The table below is based on cutting down/harvesting all trees within a 250-foot corridor of the proposed power lines as well as a 30-foot buffer for the proposed access roads. Please NOTE: That Idaho Power's preferred Mill Creek route clears 233.9 more acres of trees as the Morgan Lake route.

The information below is in Exhibit C on page C-29 Table C-23a & page 29 Table C-23b

Union County	Acres of Clear Cut Trees Preferred Mill Creek Route	Acres of Clear Cut Trees Morgan Lake Route	Difference Between the Two Routes
Number of Acres of Tree Harvesting and Clear Cuts	530.1	296.8	233.9

The Number of Acres that will be Affected by the Proposed B2H Project

Please review the number of acres that Idaho Power will use in Union County during construction of the transition lines and permanently consume after construction of the proposed lines. NOTE: That Idaho Power's preferred Mill Creek route permanently converts twice as many acres to their operations as the Morgan Lake route. The Mill Creek route will also damage 1,039.9 acres compared to the 618.7 acres of damaged by the Morgan Lake route.

Information below is in Exhibit C on page C-26 Table C-18 and page 28 Table C-21

Union County Preferred Mill Creek Route	Acres Affected During Construction	Acres reclaimed After Construction	Permanently Converted to Operations
Access Roads-New or Substantial Improvements	304.4	127.0	176.5
Commutation Station	2.7	1.2	1.5
Multi-Use Areas	111.8	111.8	0
Structure and Other Work Areas	621.0	605.5	15.5
Union County Totals	1,039.9	846.4	193.5

Union County Morgan Lake Route	Acres Affected During Construction	Acres reclaimed After Construction	Permanently Converted to Operations
Access Roads-New or Substantial Improvements	132.6	45.4	87.2
Commutation Station	1.1	0.5	0.6
Multi-Use Areas	77.8	77.8	0
Structure and Other Work Areas	407.2	398.2	9.0
Union County Totals	618.7	846.4	96.8

Preferred Route Mill Creek vs. Morgan Lake Route in Union County

When you compare the number of Towers, Communication Stations, Multi-Use Areas, Pulling and Tensioning Sites, Access Roads and Line Crossings once again the Morgan Lake route has fewer of everything than the preferred Mill Creek route.

The information below is in Exhibit C on page C-11 Table C-4 and page 27 Table C-9

Project Feature- Number of sites	Preferred Mill Creek	Morgan Lake
Towers- single Circuit 500-VK Lattice	169	82
Communication Station(s)	2	1
Light Duty Fly Yards	0	0
Multi-Use Areas	3	1
Pulling and Tensioning Sites	43	19

Access Roads- Total Miles	Preferred Route	Morgan Lake
Existing, 21-70% Improved	31.1	12
Existing, 71--100% Improved	6.4	2.5
New, Bladed	7.2	5.9
New, Primitive	0.4	0

Number of Crossing	Preferred Route	Morgan Lake
High Voltage Transmission Line Crossings	3	0
Existing Road Crossings	4	1
Railroad Crossings	3	0

I have three sincere questions that I would like the Members of the Council to respond to:

1. Why would Idaho Power prefer the Mill Creek route when it will cost them more money to build the Morgan Lake route?
2. Why was Idaho Power allowed to disregard the BLM's multi-year study of the least ecologically and socially damaging route for the B2H Project? This question was asked at the public meeting in La Grande in June and the answer that Idaho Power gave was "they were already too far along in the planning of their project to consider the BLM's recommendations." Since when does a private company ignore the federal agency's recommendations? As a tax payer I take offense at Idaho Powers response.
3. Neither the Mill Creek nor Morgan lake routes were included in the BLM's proposed route therefore neither of the routes has been vetted for ground stability, ecological damage or public safety. Why would anyone approve any route that has not been surveyed and vetted?

There is no question that the Morgan Lake would have a lesser ecological impact on Union County than the Mill Creek route but neither of the routes should be approved because of the reasons listed above. Idaho Power's B2H Proposal should be denied because of their disregard for the BLM study. As well as, for their preference for a route that will cost the tax payers more and take a bigger toll on the environment.

Thank you for shouldering the burden of representing the people in Oregon who count on you for your wisdom and ethics.

Kindest regards,

Jane Howell & J.E. Howell

Jane and Jim Howell

482 Modelaire Drive, La Grande OR 97850
d.janehowell@gmail.com

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

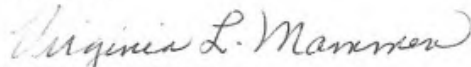
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

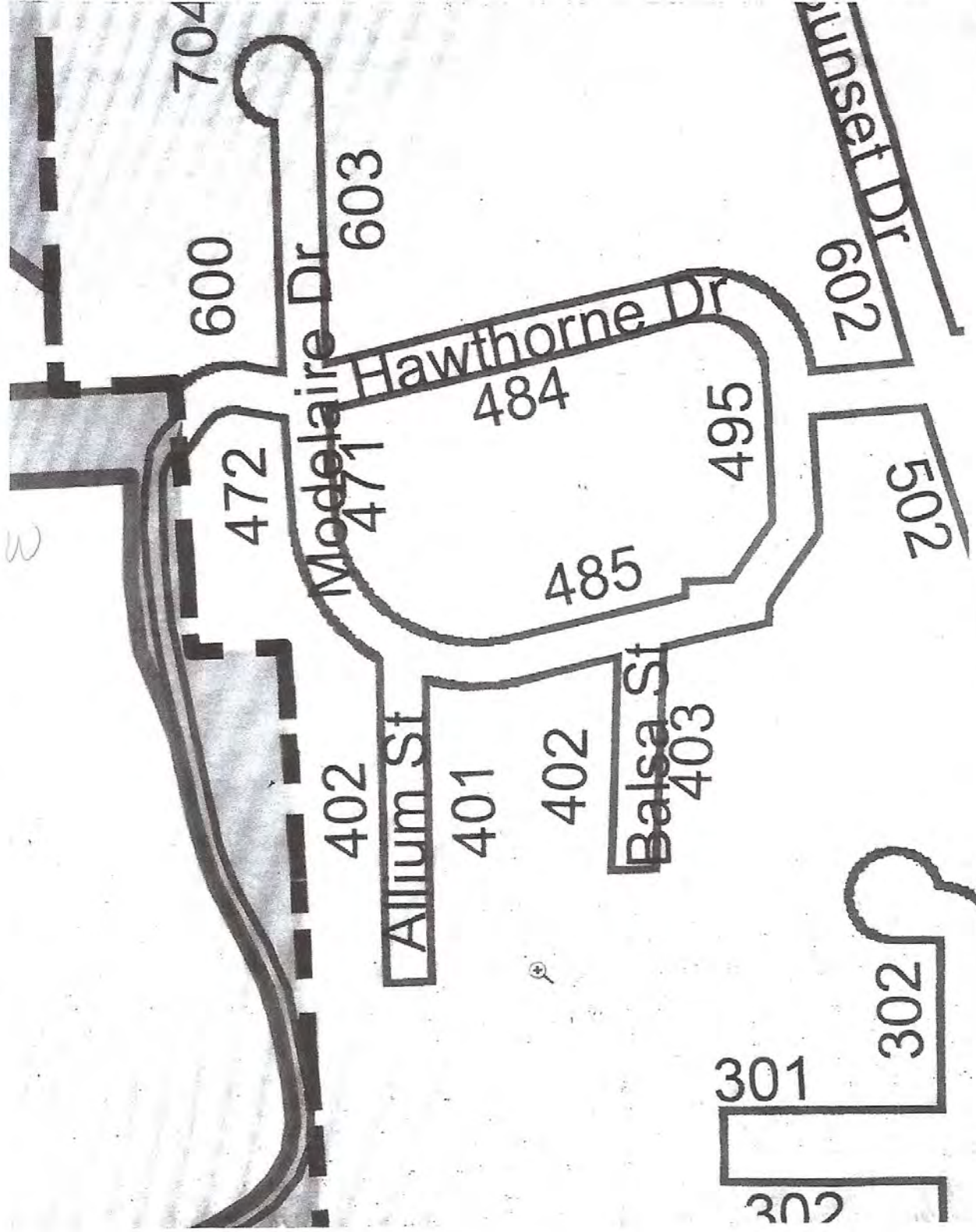


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department; b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic. <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

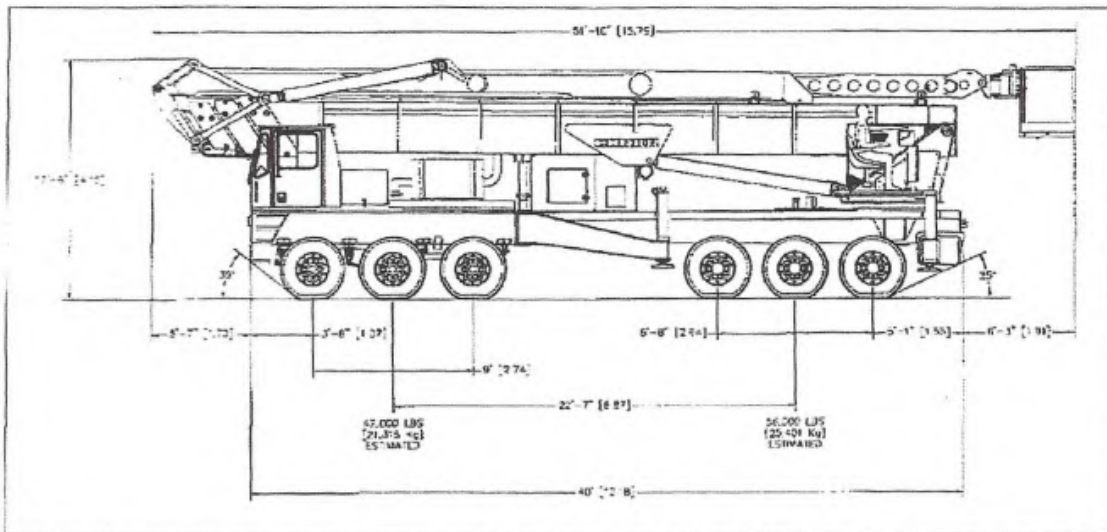


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

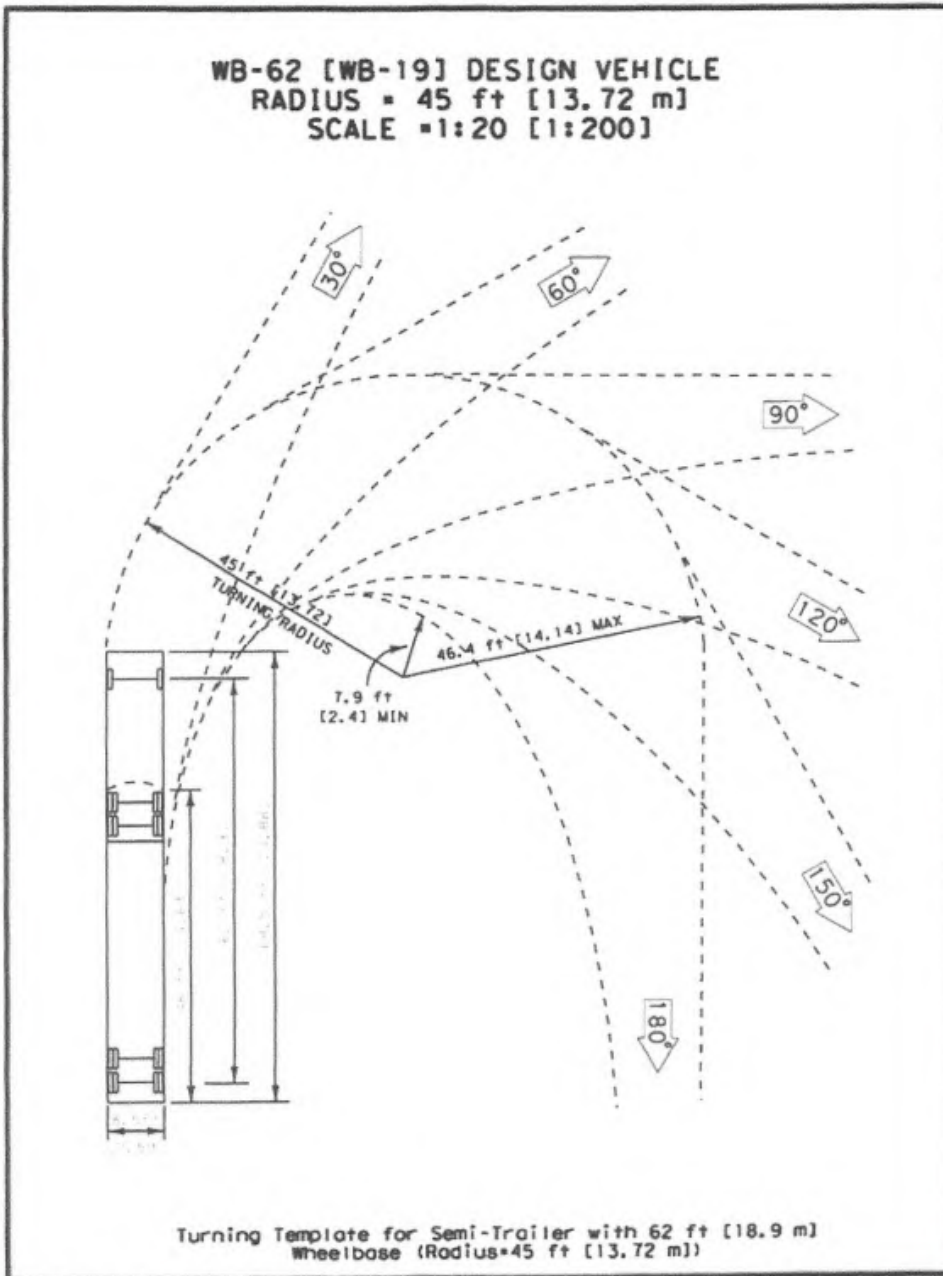


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

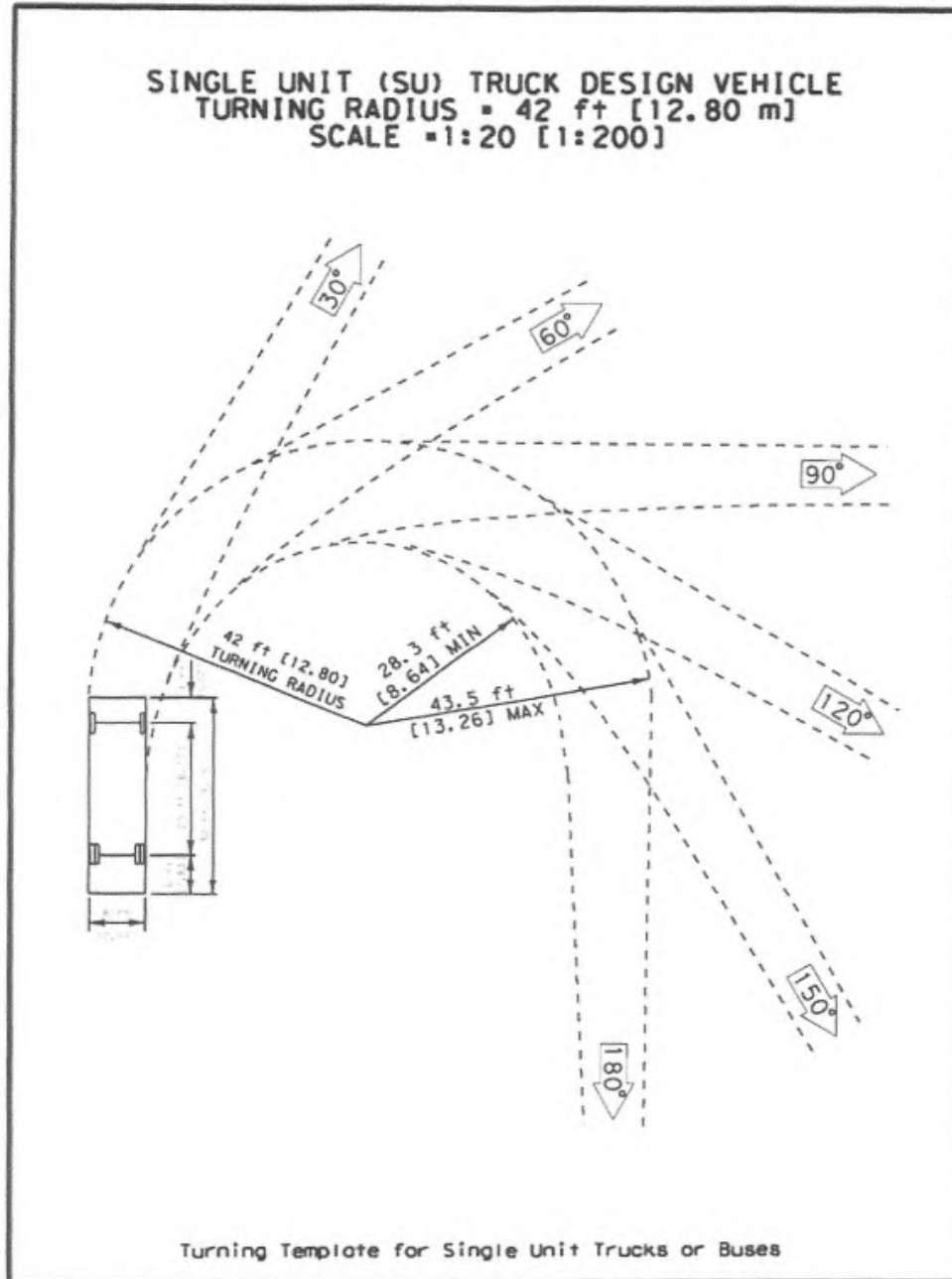


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

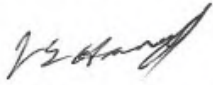
Section 17. TRUCK ROUTES

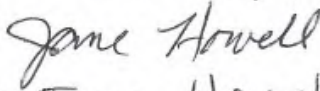
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

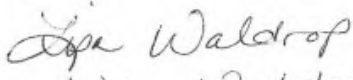
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

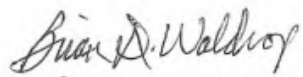
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

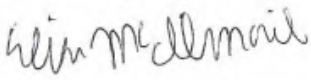
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME James E. Howell II
ADDRESS 482 Modelaire Dr
EMAIL j.howell2@frontier.com

SIGNATURE 
PRINTED NAME Jane Howell
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EMAIL d.janehowell@gmail.com

SIGNATURE 
PRINTED NAME Lisa Waldrop
ADDRESS 475 Modelaire Dr.
EMAIL ldjw62@gmail.com

SIGNATURE 
PRINTED NAME BRIAN D. WALDROP
ADDRESS 475 MODELAIRE DR.
EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRE DR.
EMAIL mcilmail154@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850
jessiehuxell@live.com

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

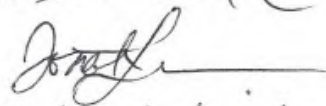

C. Huxell
472 Modelaire Dr. LG, OR 97850
CHRIS Huxell @ EMAIL.COM

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

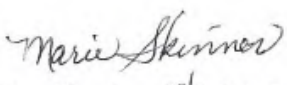

Jonah Lindeman
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SIGNATURE

PRINTED NAME

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EMAIL

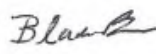

Marie Skinner
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SIGNATURE

PRINTED NAME

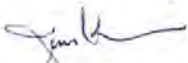
ADDRESS


EMAIL

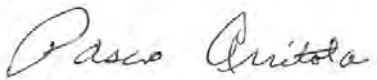

Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

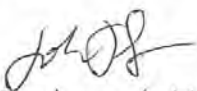
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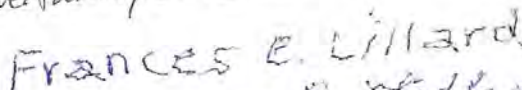
SIGNATURE 
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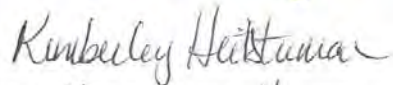
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SIGNATURE 
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PRINTED NAME Frances E. Lillard
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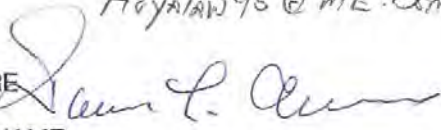
SIGNATURE 
PRINTED NAME Brent H. Smith
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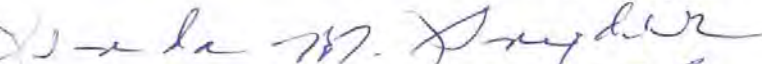
SIGNATURE 
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ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

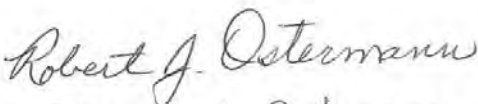
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
ADDRESS 2409 CENTURY LP, LA GRANDE, OR 97850
EMAIL kimheitstuman@hotmail.com


I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE: 
PRINTED NAME Shawn K. Mangum
ADDRESS 2909 E. M. Ave,
EMAIL Hoyalan95@ME.com


SIGNATURE 
PRINTED NAME
ADDRESS Dennis L. ALLEN #41- 9637720
410 Balsa Street LaGrande, Oregon 97858
EMAIL N/A

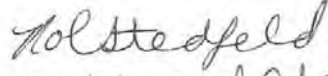
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire
EMAIL

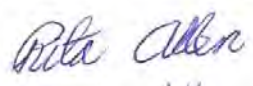
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

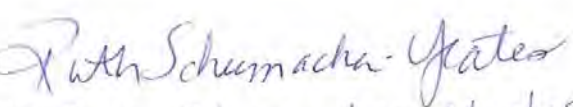
SIGNATURE 
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

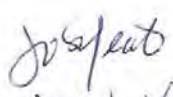
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SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Modelaire Dr
EMAIL jondwhite418@gmail.com

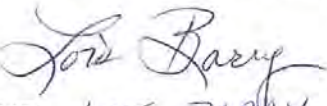
SIGNATURE 
PRINTED NAME Robin Stedfeld
ADDRESS 485 Modelaine Dr. La Grande
EMAIL rstedfeld@yahoo.com

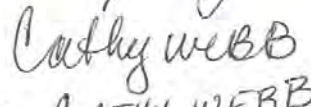
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

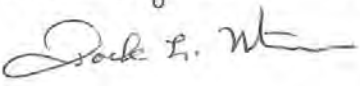
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
EMAIL ruthschumacheryeates@gmail.com

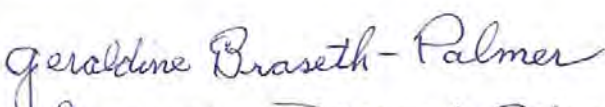

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com

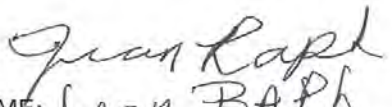
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SIGNATURE 
PRINTED NAME LOIS BARRY
ADDRESS P.O. Box 566, La Grande, OR 97850
EMAIL loisbarry31@gmail.com

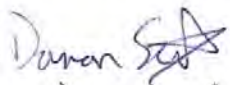
SIGNATURE 
PRINTED NAME CATHY WEBB
ADDRESS 1708 Cedar St. LAGRANDE, OR 97850
EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gilcrest Dr. LaGrande
EMAIL Buff Martin 27 @GMail .com

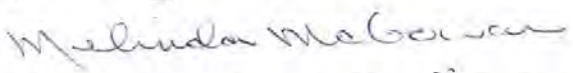
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
ADDRESS 1602 BLDENEST DRIVE LA GRANDE, Ore 97850
EMAIL 


SIGNATURE 
PRINTED NAME Jean BAPH
ADDRESS 1509 MADISON AVE LaGrande, OR 97850
EMAIL Jraph19@gmail.com

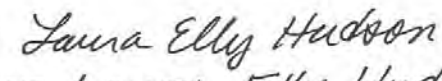
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SIGNATURE 
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL Sexton.damon@gmail.com

SIGNATURE 
PRINTED NAME Cory Sexton
ADDRESS 401 Balsa Street La Grande OR 97850
EMAIL Corytris@gmail.com

SIGNATURE 
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE 
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL Keithdhudson@gmail.com

SIGNATURE 
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL v1wd1910@gmail.com

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande, OR 97850
EMAIL acavinat@eou.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR
EMAIL joehorst@eoni.com

SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97 W Hawthorne Dr, LaGrande, Or. 97850
EMAIL asherei@frontier.com

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 Modelaire Dr. La Grande, OR 97850
EMAIL hnull@comi.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street LaGrande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 2009 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL MERLECOMFORT@GMAIL.COM

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL r.maille@icloud.com

SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C*
ADDRESS 1511 W Ave LG
EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Belketer Ln - La Grande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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PRINTED NAME
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EMAIL

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PRINTED NAME
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EMAIL

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

I am writing to oppose granting a site certificate to Idaho Power for the Boardman to Hemingway Transmission Project on the grounds of unacceptable impact to the scenic resources in the Grande Ronde valley of Oregon. This is the community I and many others chose to live and visit in part due to the outstanding scenery that should not be degraded by a string of massive towers that will overpower the natural, rural beauty that make this valley a desirable place to live and visit.

Specifically, OAR 345-022-0080, in describing Scenic Resources, states “the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans....”

The Union County Land Use Plan (1979) in the Plan Policies > Resources section, page 33, outlines goals for resources:

V. Resources

A. State Planning Goal: To conserve open space and protect natural, cultural, historical and scenic resources.

B2. That the following concerns will be taken into account in protecting area visual attractiveness:

- a. Maintaining vegetative cover wherever practical.
- b. Using vegetation or other site obscuring methods of screening unsightly uses.
- c. Minimizing number and size of signs.
- d. Siting developments to be compatible with surrounding area uses, and to recognize the natural characteristics of the location.

B6. That development will maintain or enhance attractiveness of the area and not degrade resources.

The “not likely” probability of adverse impact is not defensible, given the highly visible string of huge towers and likely violates sections V.A, V.B.2 and V.B.6 of our County’s Land Use Plan.

This is also not limited to scenic resources. Those impacts also involve economic impacts not considered since they degrade the attractiveness of the area to businesses to locate here and its desirability of their employees and others to move and live here, as well as its attractiveness to tourists and travelers to come here.

Idaho Power’s application should, therefore, be denied.

Thank you for your consideration.

Philip J. Howell
60522 Bushnell Rd.
La Grande, OR 97850
phowellx@gmail.com

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

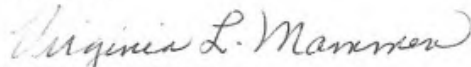
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

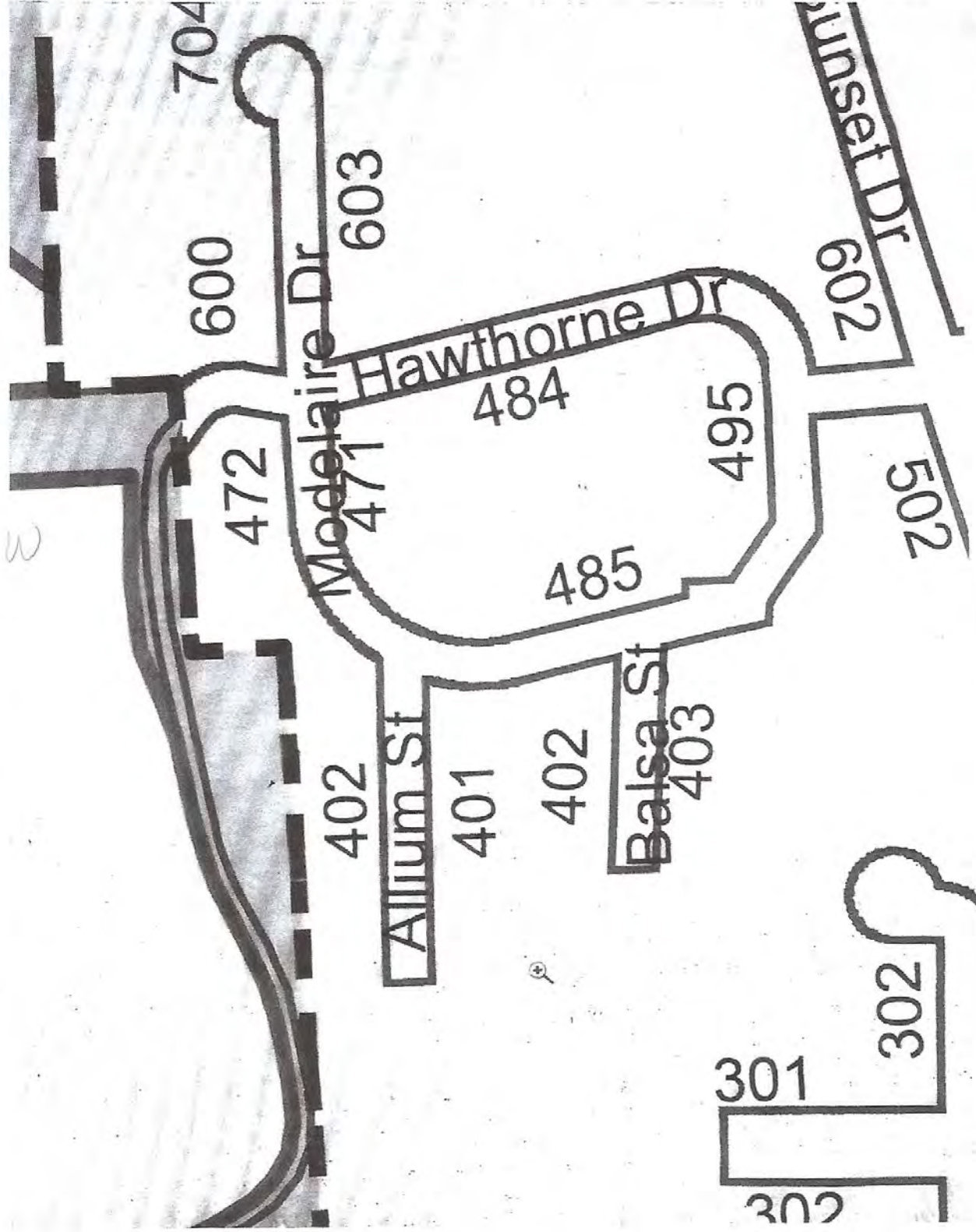


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



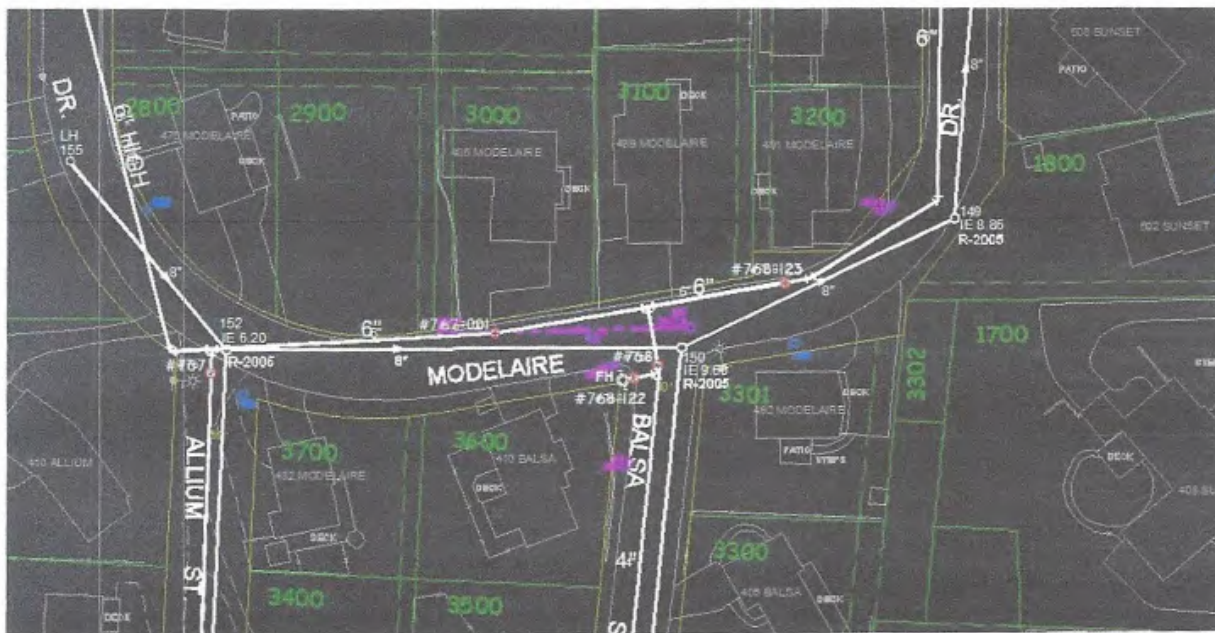
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

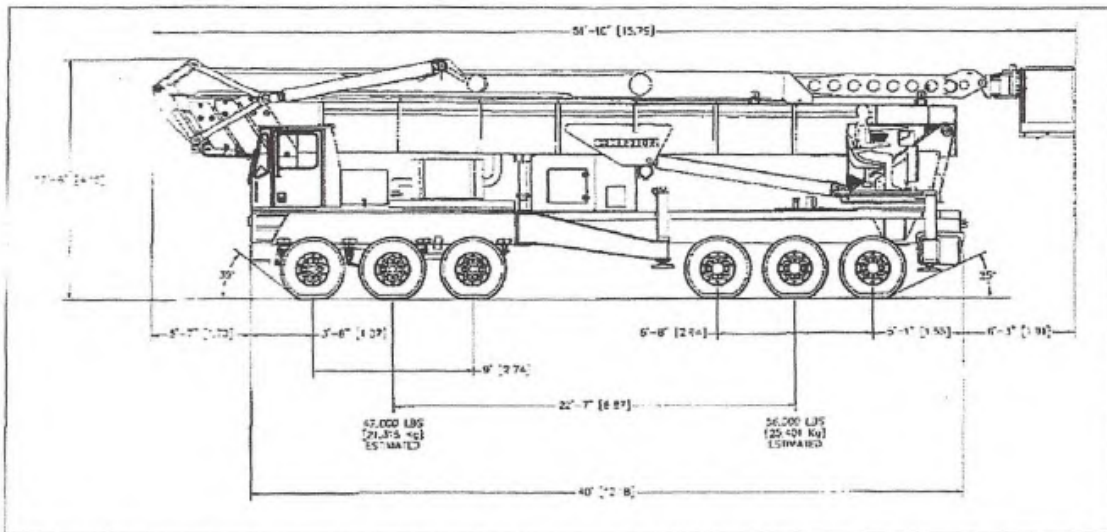


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

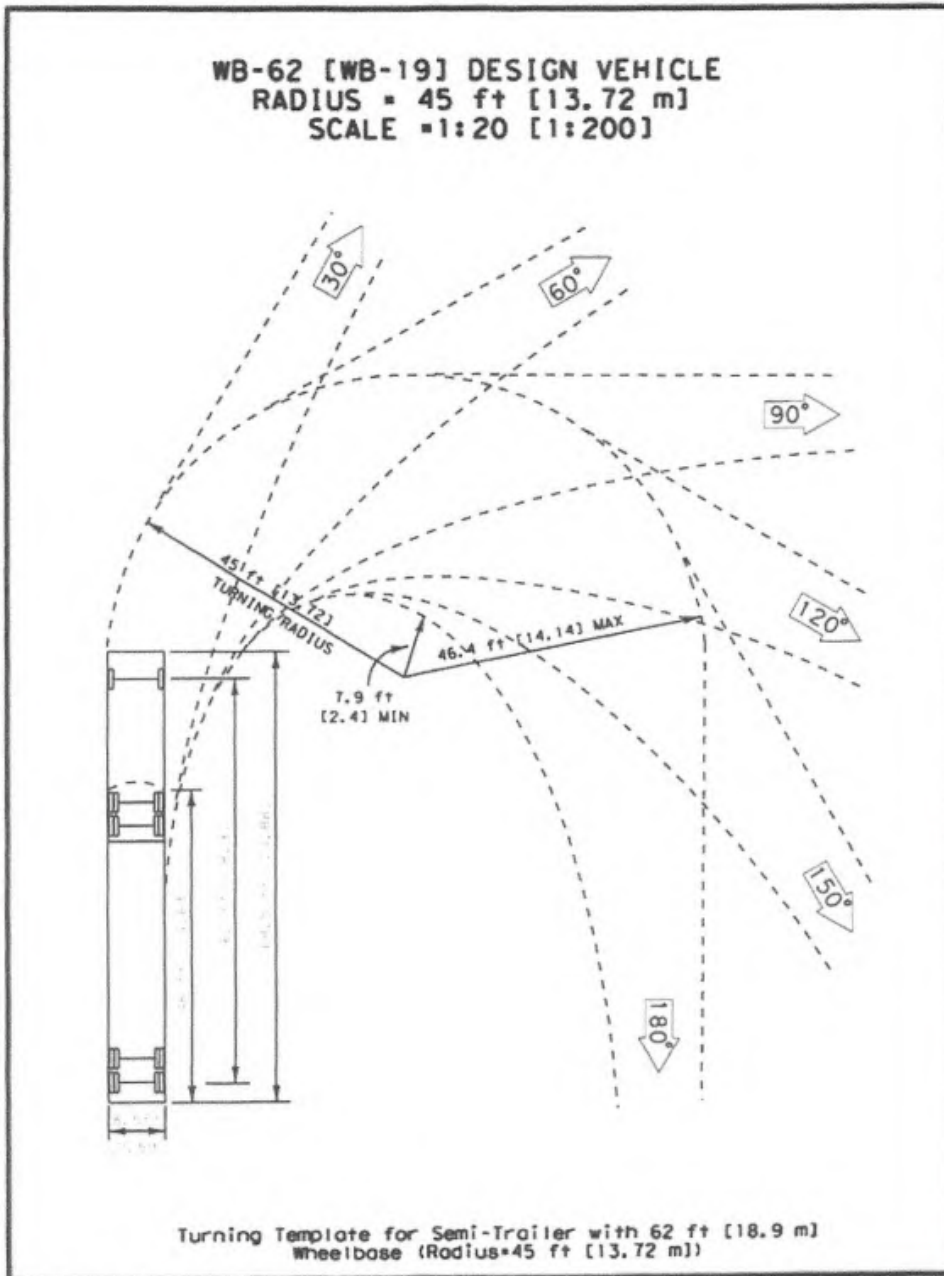


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

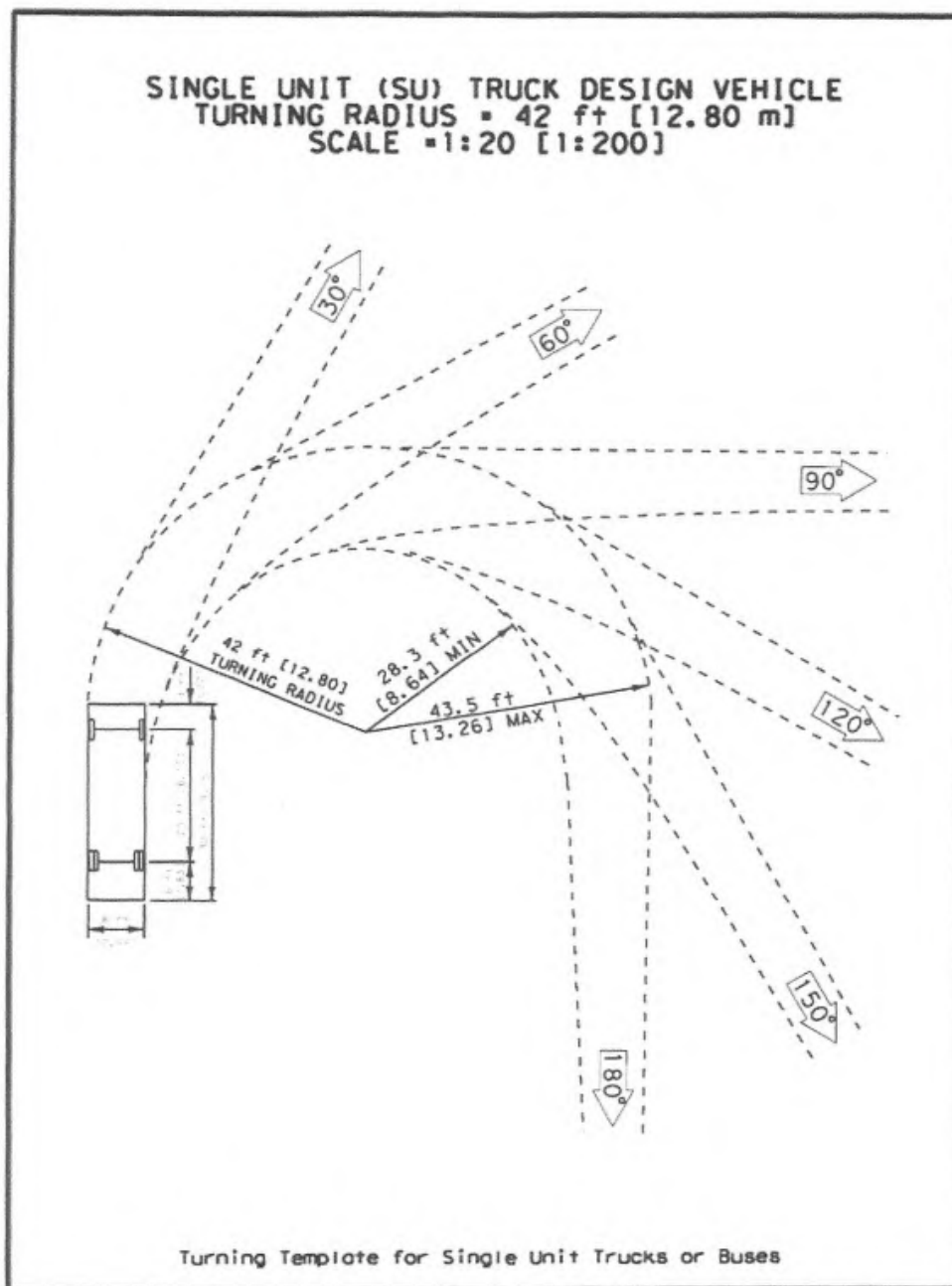


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

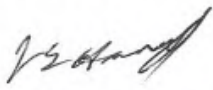
Section 17. TRUCK ROUTES

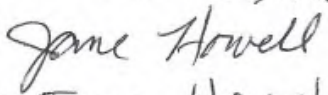
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

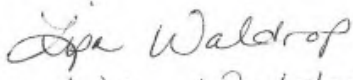
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

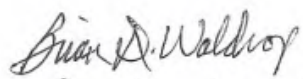
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

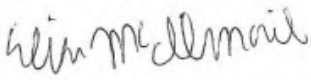
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME James E. Howell II
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SIGNATURE 
PRINTED NAME Jane Howell
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EMAIL d.janehowell@gmail.com

SIGNATURE 
PRINTED NAME Lisa Waldrop
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EMAIL ldjw62@gmail.com

SIGNATURE 
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EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRES DR.
EMAIL mcilmail151@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

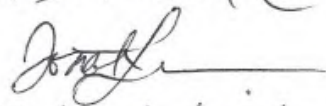

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CHRIS Huxell @ EMAIL.COM

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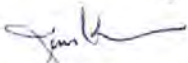
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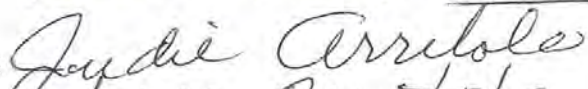
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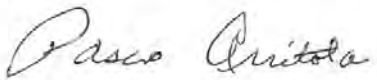
Blake Bars
Blake Bars
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blakebars@gmail.com

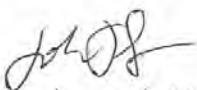
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SIGNATURE 
PRINTED NAME D. Dale Mammen
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EMAIL d mammen @ coni. com


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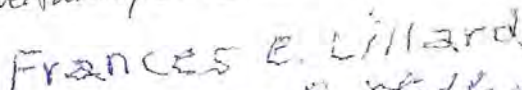
SIGNATURE 
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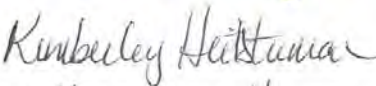
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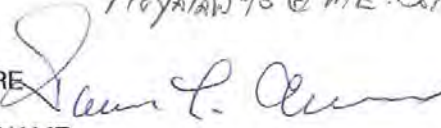
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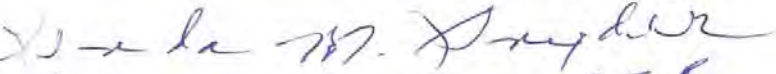
SIGNATURE 
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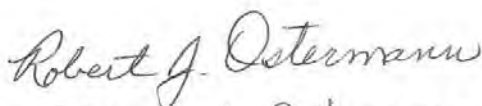
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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EMAIL kimheitstuman@hotmail.com


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SIGNATURE: 
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EMAIL N/A

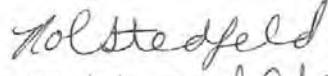
SIGNATURE 
PRINTED NAME Linda Snyder
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EMAIL

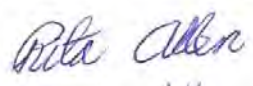
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PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

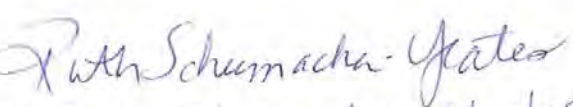
SIGNATURE 
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr La Grande, OR 97850
EMAIL

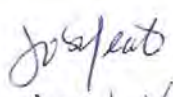
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SIGNATURE 
PRINTED NAME Jonathan D. White
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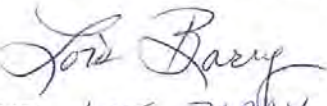
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PRINTED NAME Robin Stedfeld
ADDRESS 485 Modelaine Dr. La Grande
EMAIL rstedfeld@yahoo.com

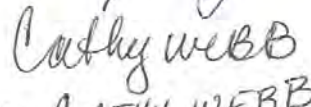
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

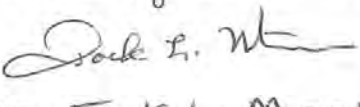
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
EMAIL ruthschumacheryeates@gmail.com

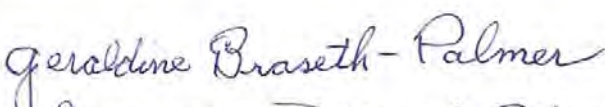

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com

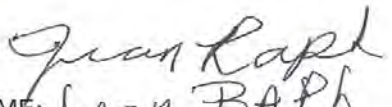
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME Lois BARRY
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EMAIL loisbarry31@gmail.com

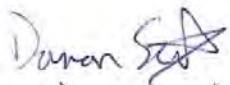
SIGNATURE 
PRINTED NAME CATHY WEBB
ADDRESS 1708 Cedar St. LAGRANDE, OR 97850
EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gilcrest Dr. LaGrande
EMAIL Buff Martin 27 @GMail .com

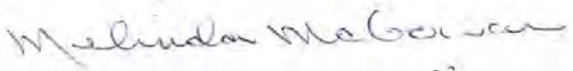
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
ADDRESS 1602 Goldenest Drive LA GRANDE, Ore 97850
EMAIL 


SIGNATURE 
PRINTED NAME Jean BAPH
ADDRESS 1509 MADISON AVE LaGrande, OR 97850
EMAIL Jraph19@gmail.com

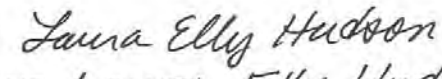
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SIGNATURE 
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL Sexton.damon@gmail.com

SIGNATURE 
PRINTED NAME Cory Sexton
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SIGNATURE 
PRINTED NAME Melinda McGowan
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EMAIL melindamegowan@gmail.com

SIGNATURE 
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL Keithdhudson@gmail.com

SIGNATURE 
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL r1wd1910@gmail.com

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande, OR 97850
EMAIL acavinat@eou.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR
EMAIL joehorst@eoni.com

SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97 W Hawthorne Dr, LaGrande, Or. 97850
EMAIL asherec@frontier.com

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 Modelaire Dr. La Grande, OR 97850
EMAIL hnull@comi.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street LaGrande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 2009 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL MERLECOMFORT@GMAIL.COM

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL r.maille@icloud.com

SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C*
ADDRESS 1511 W Ave LG
EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Belketer Ln - LaGrande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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PRINTED NAME
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EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

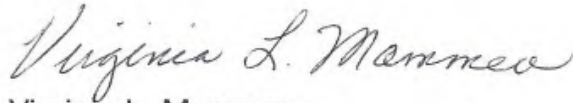
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

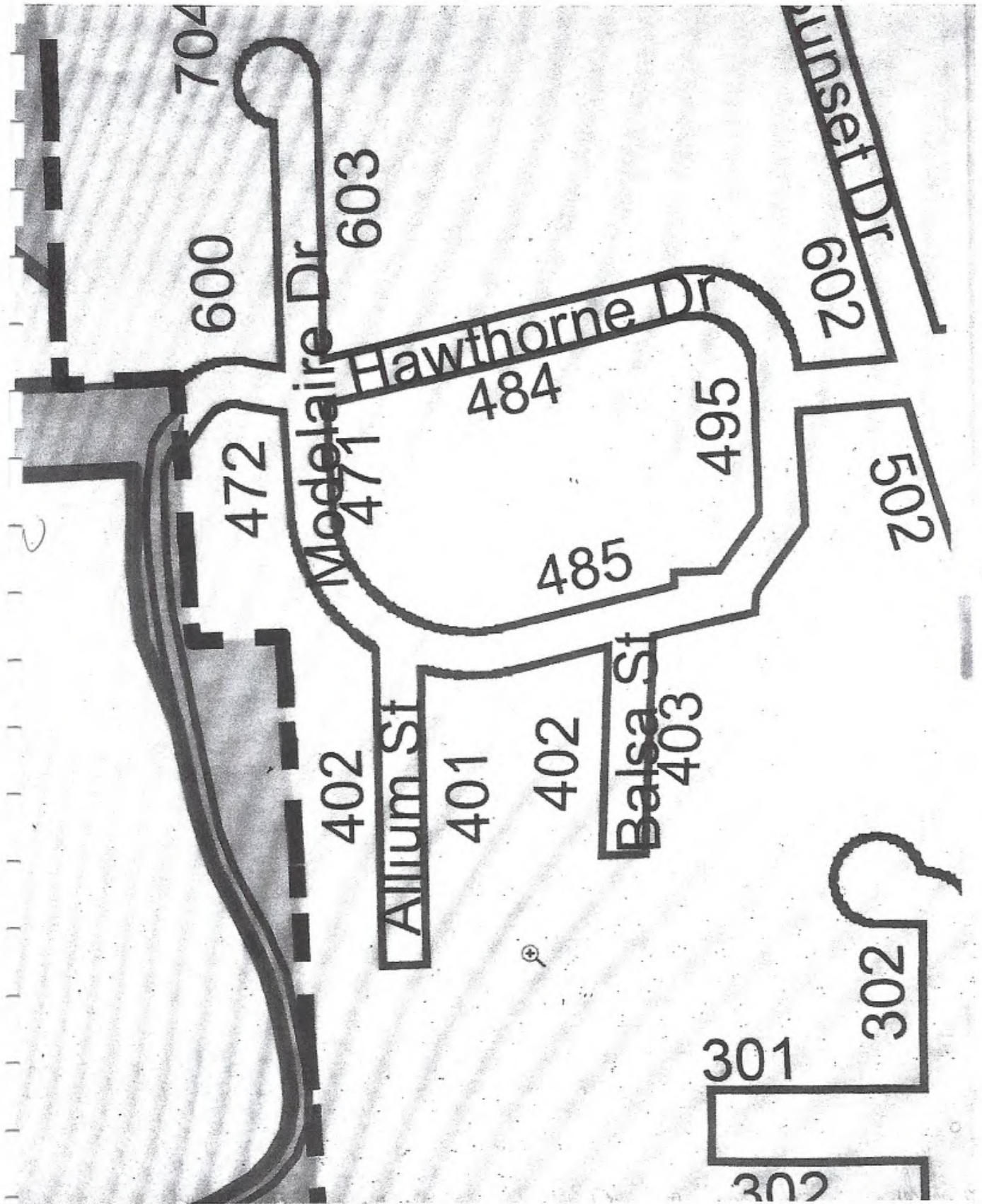


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



8/5/2019

Oregon Secretary of State Administrative Rules

Exhibit 4a

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

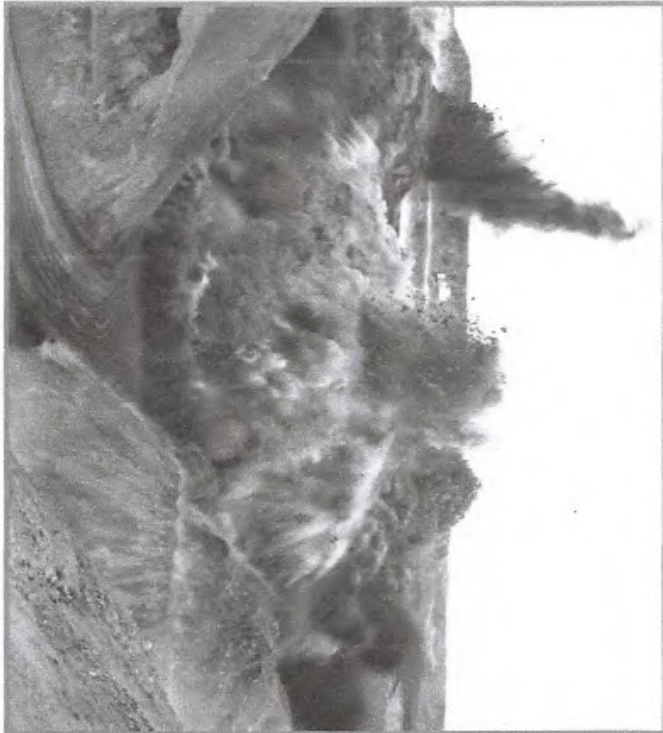
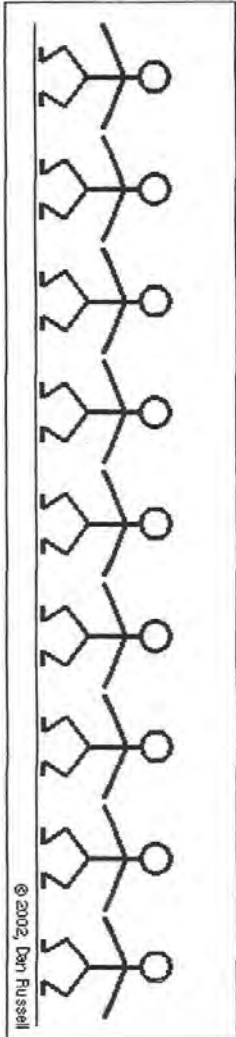


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

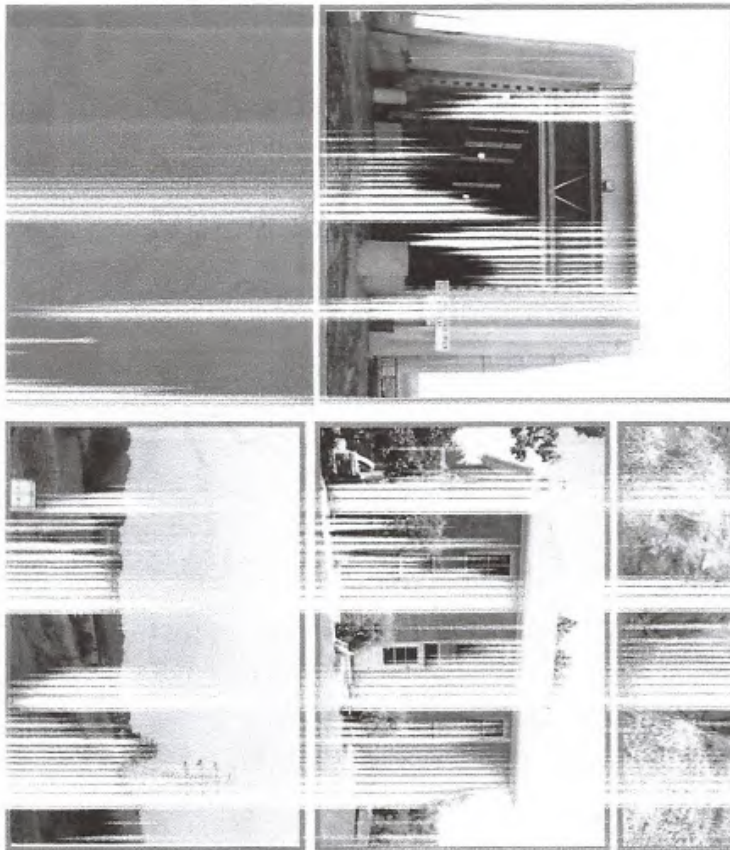
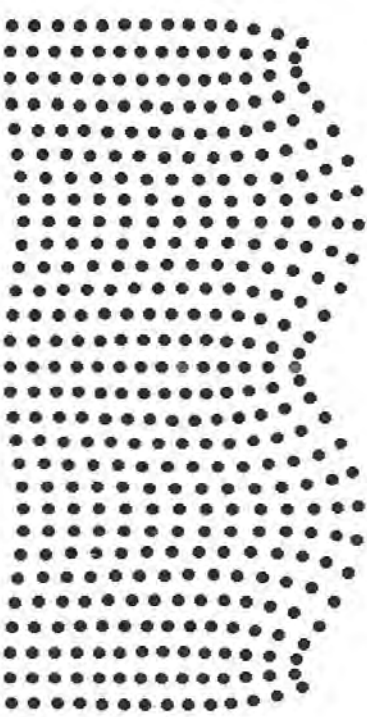


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

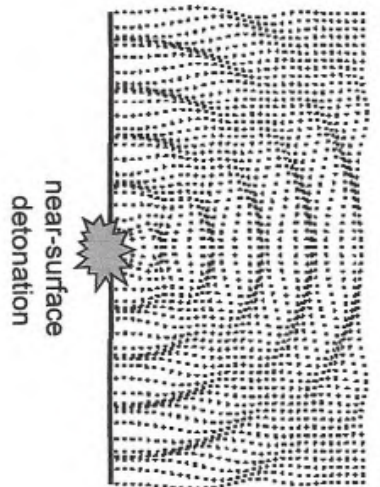
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

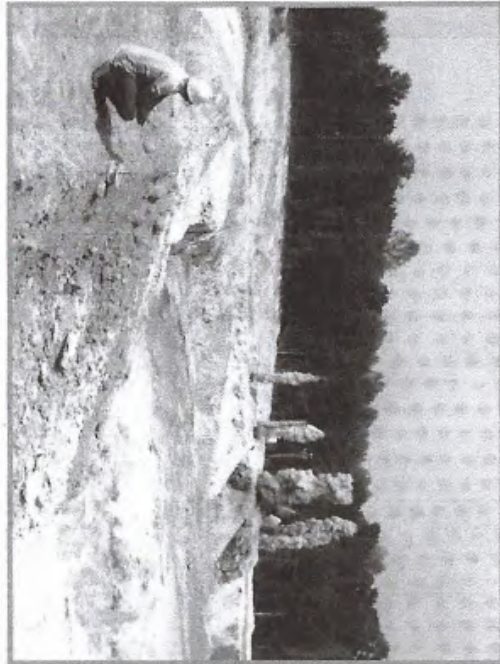
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

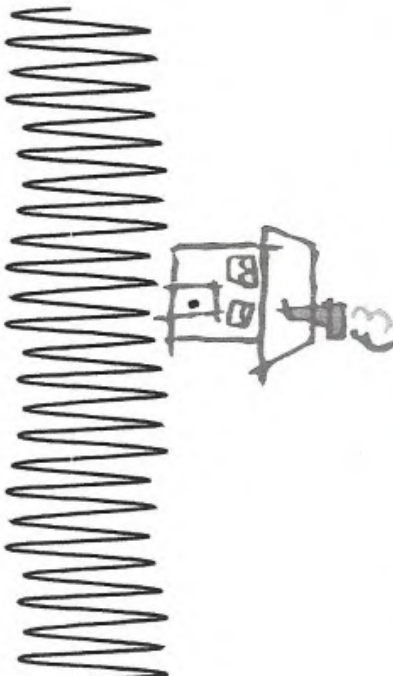
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

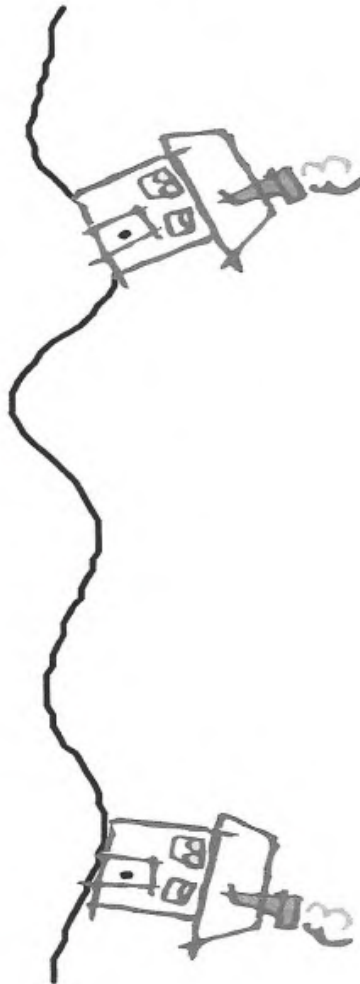


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.



8/4/2019



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A noisy problem - Harvard Health

Exhibit 16
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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



Front Psychol. 2013; 4: 578.

PMCID: PMC3757288

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10/12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

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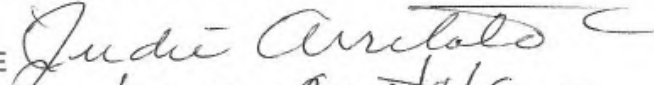


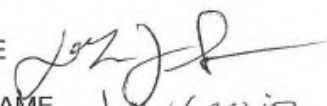
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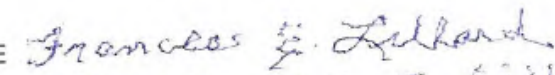
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE 
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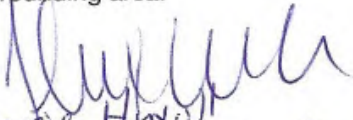
SIGNATURE 
PRINTED NAME Andrea Gulzow
ADDRESS 486 Hawthorne DR, La Grande OR 97850
EMAIL foreverfamily33@ad.com

SIGNATURE 
PRINTED NAME FRANCES E Lillard
ADDRESS 471 Mainline DR. LG
EMAIL

SIGNATURE 
PRINTED NAME C. Huxoll
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EMAIL CHRISHUXOLL@EMAIL.COM

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE



PRINTED NAME

Jessie Hutull

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SIGNATURE



PRINTED NAME

Brent H Smith

ADDRESS

410 Allium St La Grande 97850

EMAIL

smithbrent@gmail.com

SIGNATURE



PRINTED NAME

M. Jeannette Smith

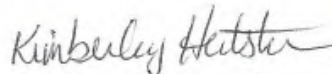
ADDRESS

410 Allium Street

EMAIL

jeannettecupton@gmail.com

SIGNATURE



PRINTED NAME

KIMBERLEY HETSTUMAN

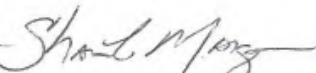
ADDRESS

2409 CENTURY LP, LA GRANDE, OR 97850

EMAIL

kimheitstuman@hotmail.com

SIGNATURE



PRINTED NAME

Shawn K. Mangum

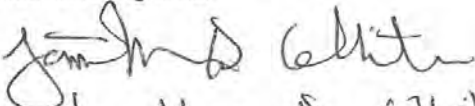
ADDRESS

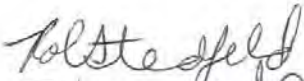
2409 E. M. Ave.


EMAIL

Hoyalaw95@me.com

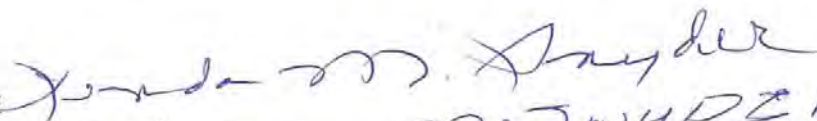
I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Madelaine Dr
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SIGNATURE 
PRINTED NAME Robin Stedfeld
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EMAIL rstedfeld@yahoo.com

SIGNATURE 
PRINTED NAME Lonnie L. ALLEN 541-963-7720
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EMAIL N/A NONE:

SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. LaGrande Or.
EMAIL

SIGNATURE 
PRINTED NAME Linda M. SNYDER
ADDRESS 491 17702 SHIRE
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robin J. Ostermann*
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaine Dr La Grande, OR 97850
EMAIL

SIGNATURE *Robert J. Ostermann*
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaine Dr. La Grande, OR 97850
EMAIL

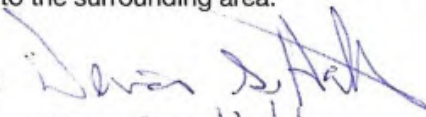
SIGNATURE *John Yeates*
PRINTED NAME JOHN YEATES
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EMAIL jyeates52@gmail.com

SIGNATURE *Ruth Schumacher Yeates*
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SIGNATURE *D. Dak Mammen*
PRINTED NAME D. Dak Mammen
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EMAIL dmammen@conic.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE



PRINTED NAME

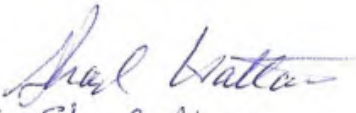
Denise Hattan

ADDRESS

507 Sunset Dr. La Grande, OR

EMAIL

SIGNATURE



PRINTED NAME

Shad Hattan

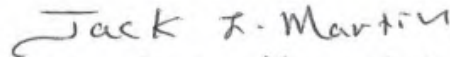
ADDRESS

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hattansl88@gmail.com

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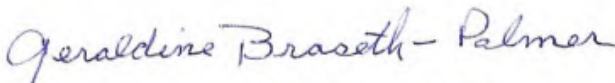
Jack L. Martin

ADDRESS

1412 Gildcrest Dr.

EMAIL

SIGNATURE



PRINTED NAME

GERALDINE BRASETH-PALMER

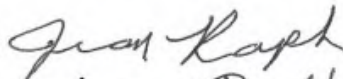
ADDRESS

1602 Gildcrest Drive - LaGrande, Or; 97850

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SIGNATURE



PRINTED NAME

Jean RAPH

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1509 Madison Ave LaGrande, OR 97850

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jraph19@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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SIGNATURE
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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lois Barry*
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SIGNATURE *JoAnn Marlette*
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EMAIL KeithDhudson@gmail.com

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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lynn Wheeler Duncan*
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SIGNATURE *Gary D. Pierson*
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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Merle E Comfort*
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SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 4th Street - LaGrande - OR 97850
EMAIL

SIGNATURE *Gerald D. Juniper*
PRINTED NAME Gerald Darwin Juniper
ADDRESS 406 4th St. LaGrande, OR. 97850
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robert J. Sherer*
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SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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SIGNATURE *Bert R. Frewing*
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EMAIL jeanfrewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

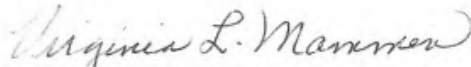
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

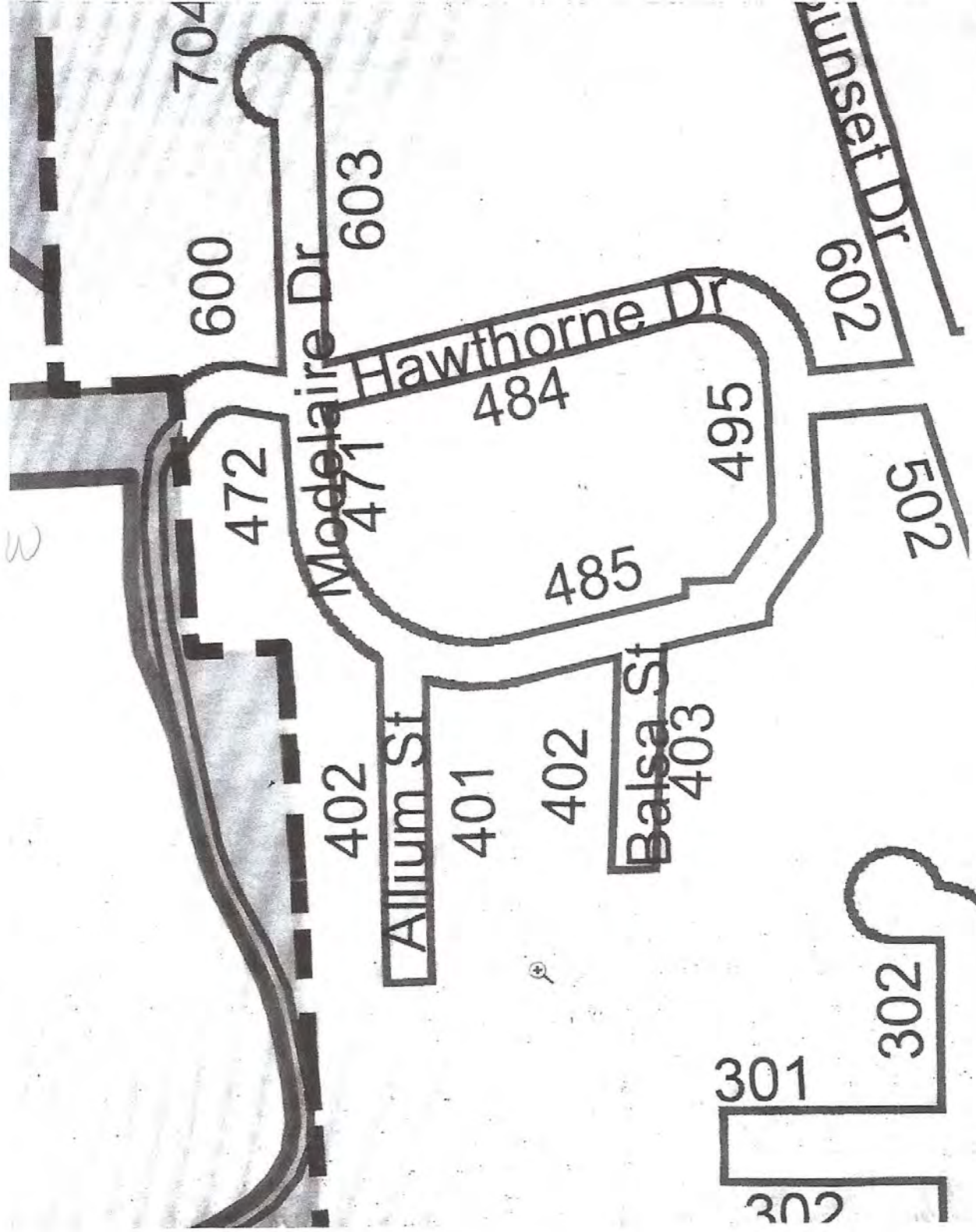


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

7/25/2019

Gmail - Modelaire Roadway Specifications

Exhibit 6



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



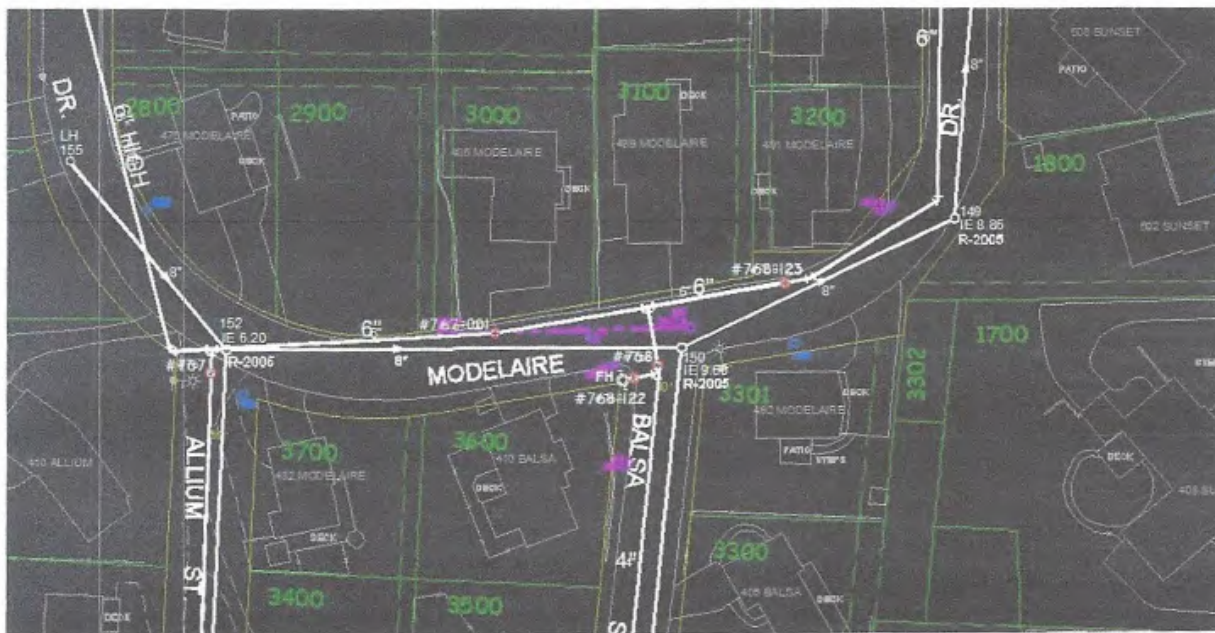
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

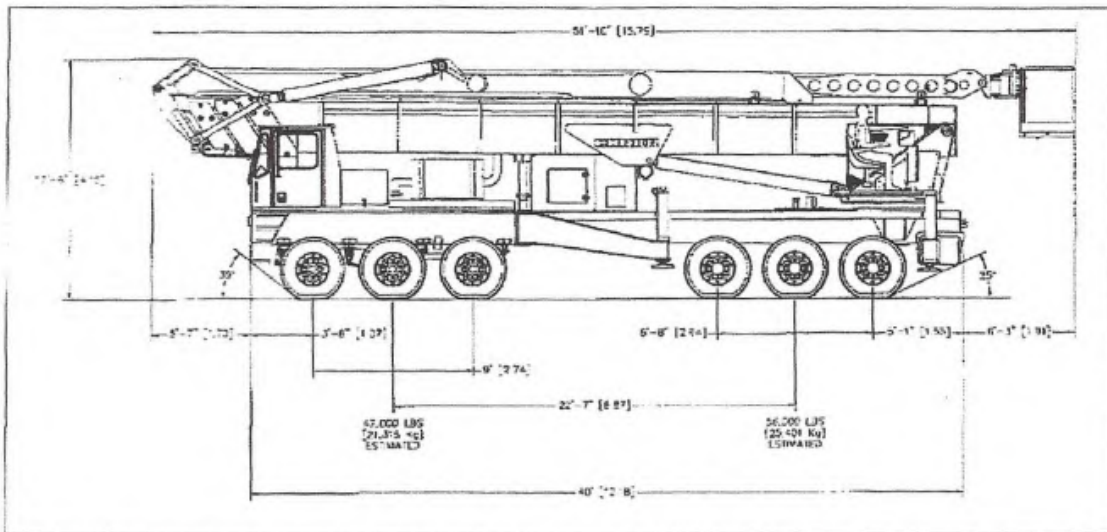


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

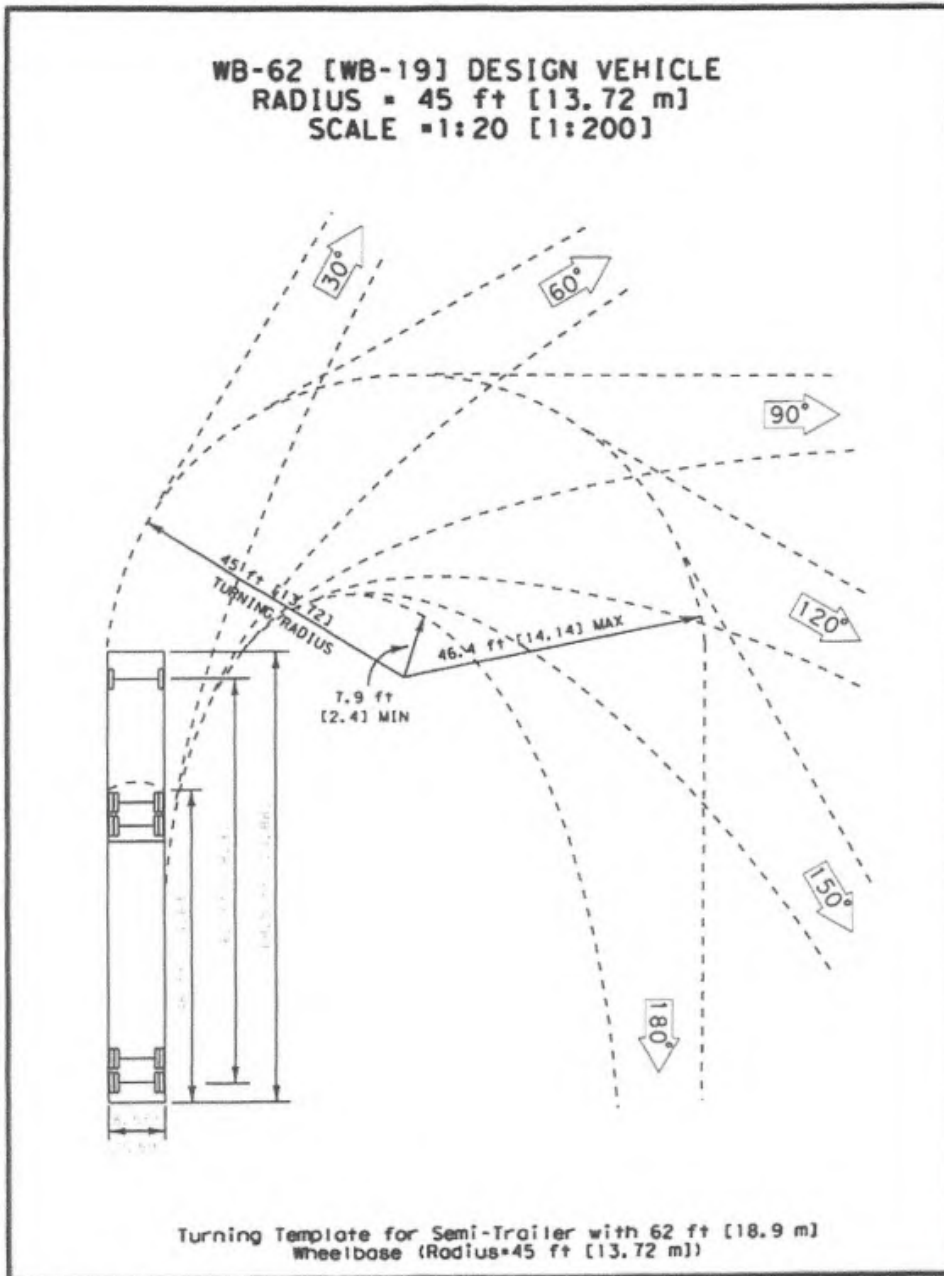


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

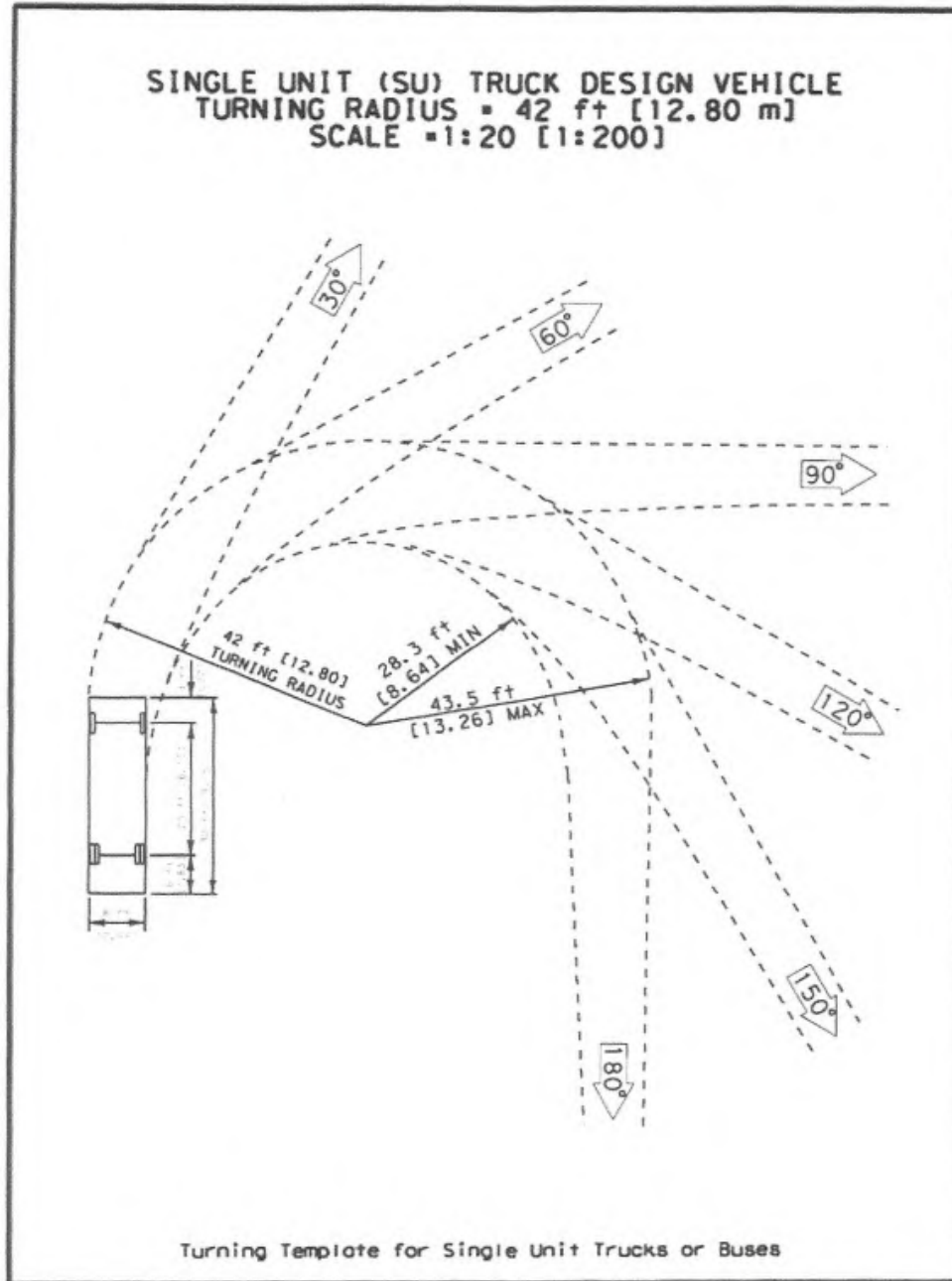


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

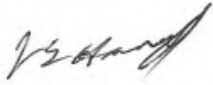
Section 17. TRUCK ROUTES

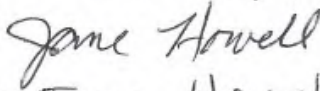
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

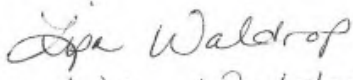
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

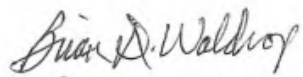
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

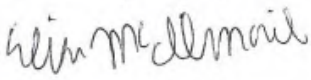
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME James E. Howell II
ADDRESS 482 Modelaire Dr
EMAIL j.howell2@frontier.com

SIGNATURE 
PRINTED NAME Jane Howell
ADDRESS 482 Modelaire DR
EMAIL d.janehowell@gmail.com

SIGNATURE 
PRINTED NAME Lisa Waldrop
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EMAIL ldjw62@gmail.com

SIGNATURE 
PRINTED NAME BRIAN D. WALDROP
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EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRE DR.
EMAIL mcilmail154@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

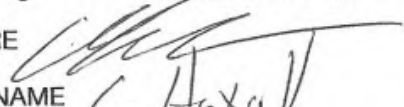

Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

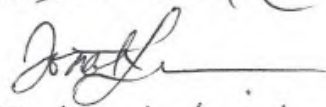

Chris Huxell
472 Modelaire Dr. LG, OR 97850
CHRIS Huxell @ EMAIL.COM

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jonah Lindeman
702 Modelaire LaGrande
jlindeman@rpi.ag

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

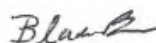

Marie Skinner
208 3rd LaGrande
marieskinner@hotmail.com

SIGNATURE

PRINTED NAME

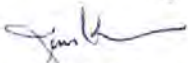
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EMAIL

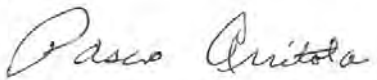

Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

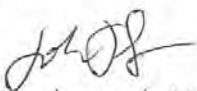
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SIGNATURE 
PRINTED NAME D. Dale Mammen
ADDRESS 405 Balsa, La Grande, Or
EMAIL d mammen @ coni. com

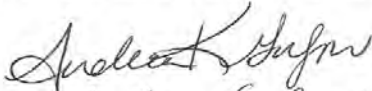
SIGNATURE 
PRINTED NAME Jim Kreider
ADDRESS 6036 Marvin Rd
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EMAIL jkreider@campblackdog.org

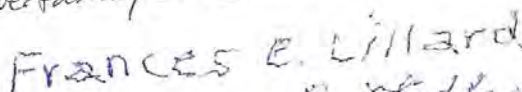
SIGNATURE 
PRINTED NAME Judie Arritola
ADDRESS 603 Modelaire La Grande OR
EMAIL jtol@charter.net


SIGNATURE 
PRINTED NAME Pasco Arritola
ADDRESS 603 Modelaire La Grande, OR
EMAIL Pstola@charter.net


SIGNATURE 
PRINTED NAME John Bazuta
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EMAIL

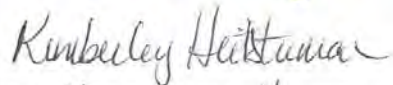
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SIGNATURE 
PRINTED NAME Andrea Galzow
ADDRESS 486 Hawthorne DR, La Grande
EMAIL foreverfamily33@aol.com


SIGNATURE 
PRINTED NAME Frances E. Lillard
ADDRESS 477 Madelaine Dr. L.G.
EMAIL

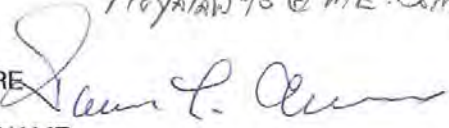
SIGNATURE 
PRINTED NAME Brent H. Smith
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EMAIL smithbrent@gmail.com

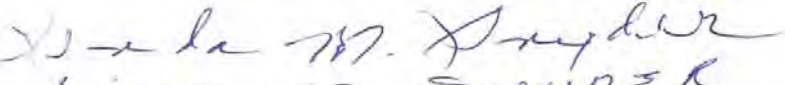
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

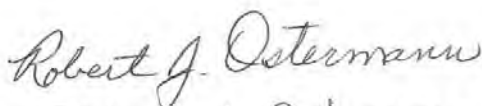
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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EMAIL kimheitstuman@hotmail.com

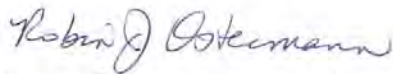
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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
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EMAIL Hoyakaw95@ME.com


SIGNATURE 
PRINTED NAME
ADDRESS Lonnie L. ALLEN #41- 9637720
410 Balsa Street LaGrande, Oregon 97858
EMAIL N/A

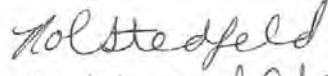
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire
EMAIL

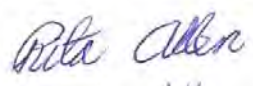
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

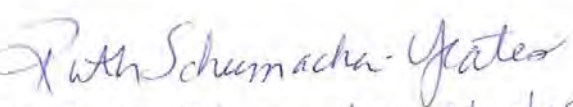
SIGNATURE 
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr La Grande, OR 97850
EMAIL

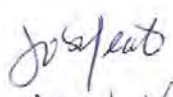
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SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Modelaire Dr
EMAIL jondwhite418@gmail.com

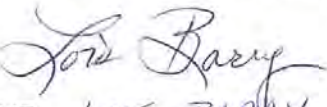
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PRINTED NAME Robin Stedfeld
ADDRESS 485 Modelaine Dr. La Grande
EMAIL rstedfeld@yahoo.com

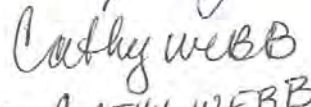
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

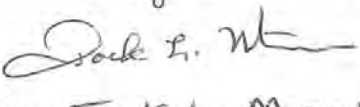
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
EMAIL ruthschumacheryeates@gmail.com

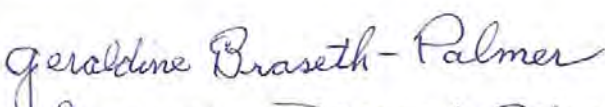

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com

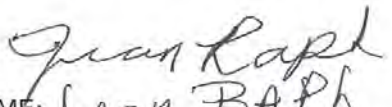
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SIGNATURE 
PRINTED NAME Lois BARRY
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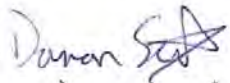
SIGNATURE 
PRINTED NAME CATHY WEBB
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EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gilcrest Dr. LaGrande
EMAIL Buff Martin 27 @GMail .com

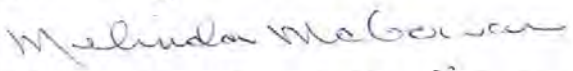
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
ADDRESS 1602 BLDENEST DRIVE LA GRANDE, Ore 97850
EMAIL 


SIGNATURE 
PRINTED NAME Jean BAPH
ADDRESS 1509 MADISON AVE LaGrande, OR 97850
EMAIL Jraph19@gmail.com

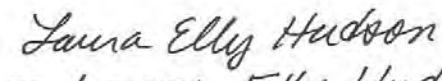
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SIGNATURE 
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL Sexton.damon@gmail.com

SIGNATURE 
PRINTED NAME Cory Sexton
ADDRESS 401 Balsa Street La Grande OR 97850
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SIGNATURE 
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE 
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL Keithdhudson@gmail.com

SIGNATURE 
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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EMAIL v1wd1910@gmail.com

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
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EMAIL acavinat@eou.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR
EMAIL joehorst@eoni.com

SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97 W Hawthorne Dr, LaGrande, Or. 97850
EMAIL asherei@frontier.com

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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EMAIL hnull@comi.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street LaGrande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 2009 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL MERLECOMFORT@GMAIL.COM

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
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SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C Kevan*
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EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Belketer Ln - LaGrande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
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PRINTED NAME
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EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.


In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

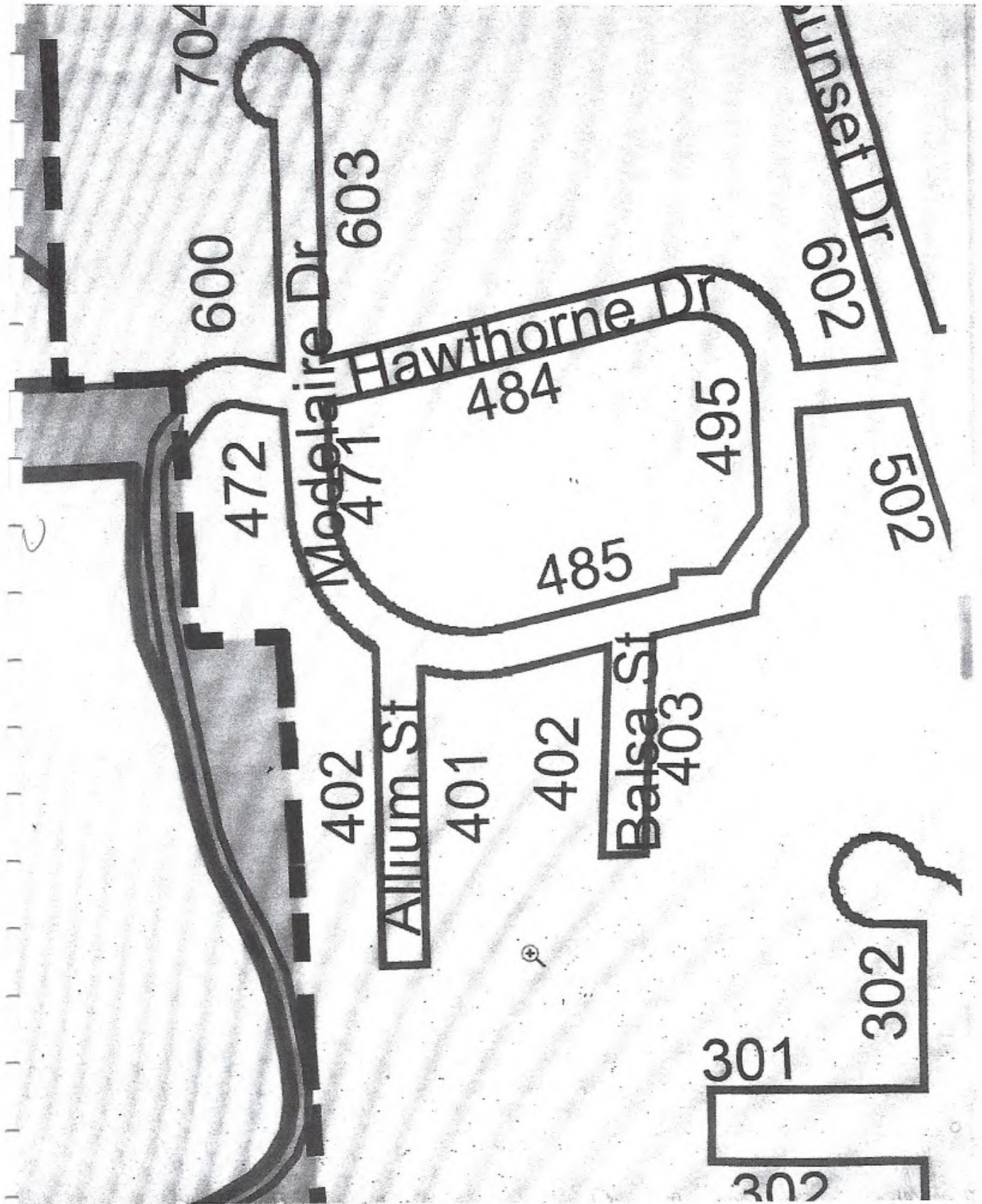


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



2

11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



8/5/2019

Oregon Secretary of State Administrative Rules

Exhibit 4a

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

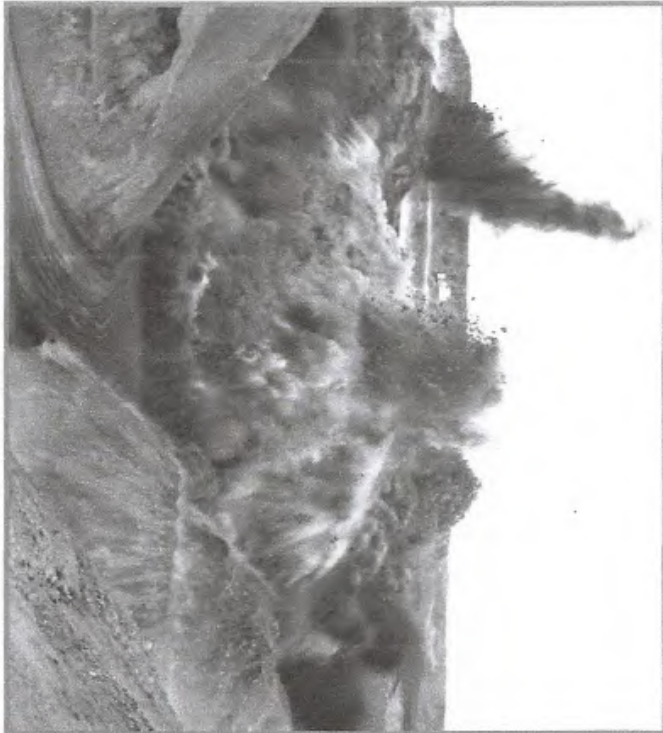
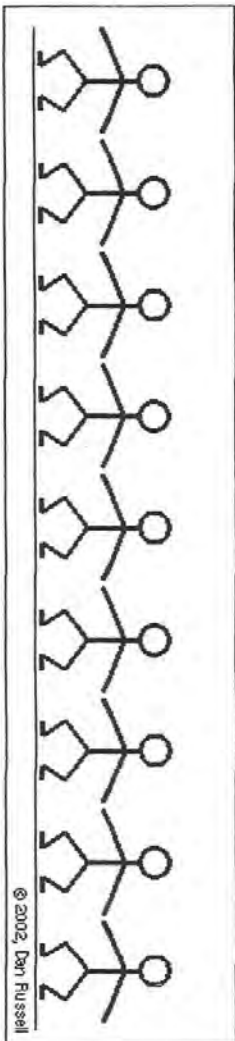


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

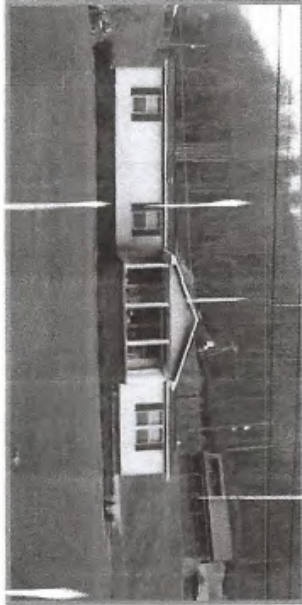
Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

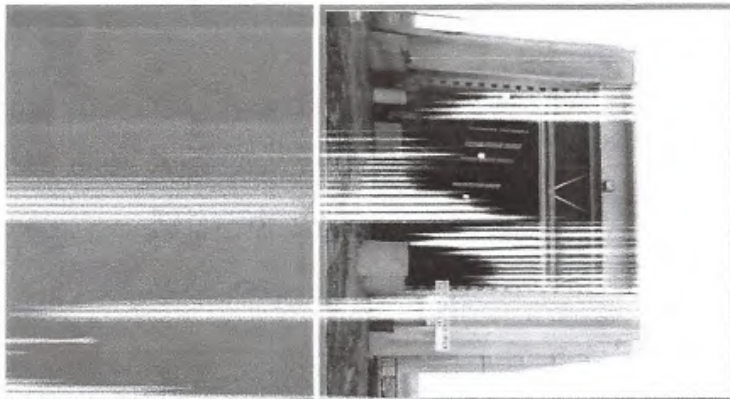
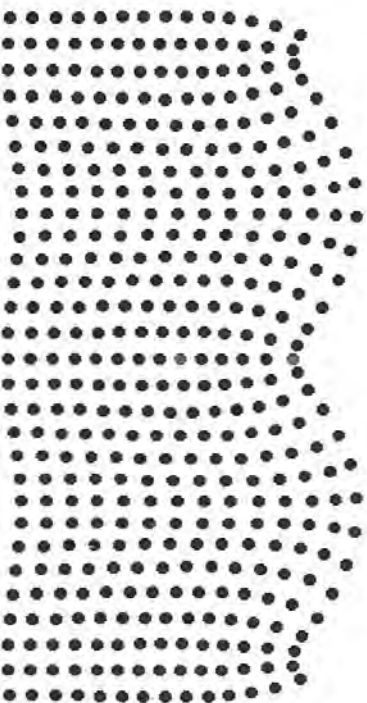


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



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Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

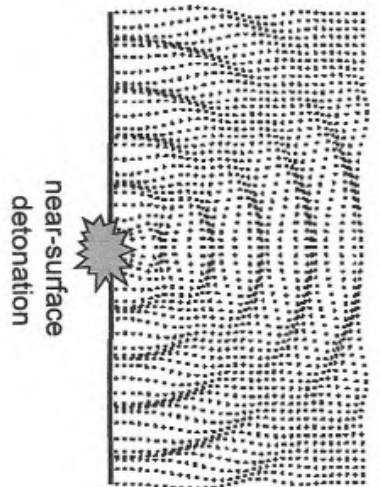
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

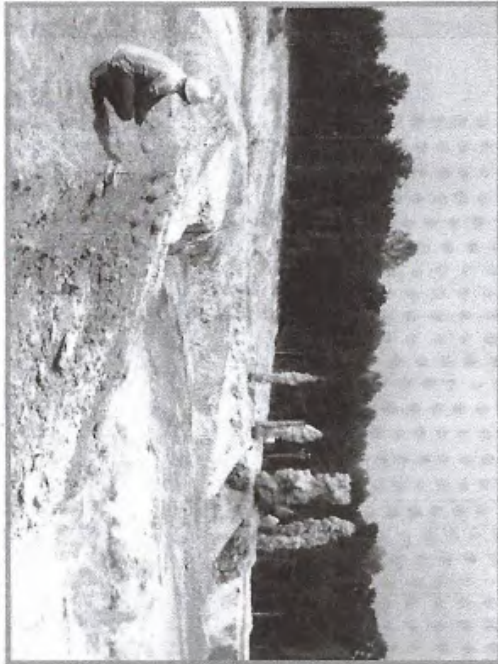
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

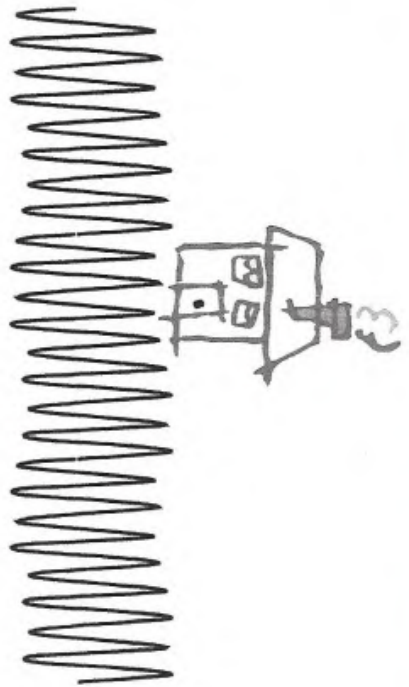
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

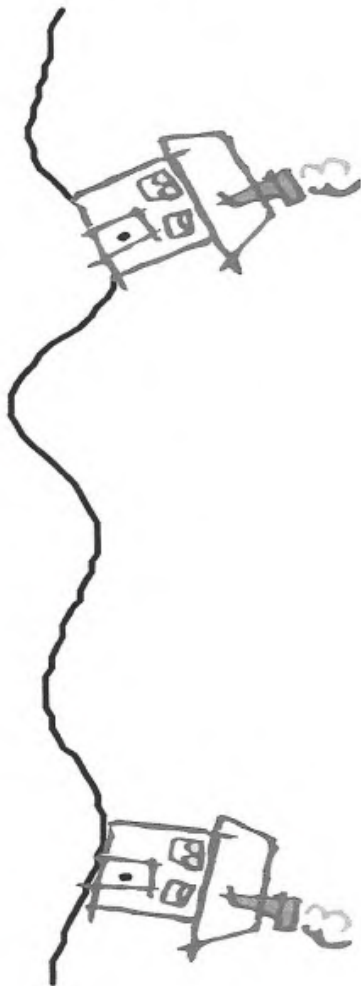


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



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A noisy problem - Harvard Health

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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10/12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q ☰

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
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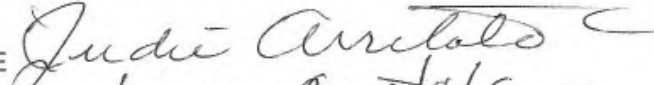


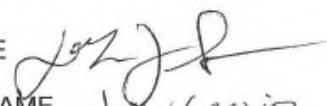
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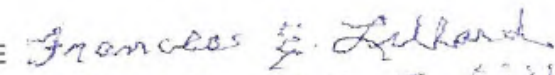
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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ADDRESS

2409 CENTURY LP, LA GRANDE, OR 97850

EMAIL

kimheitstuman@hotmail.com

SIGNATURE

PRINTED NAME

Shawn K. Mangum

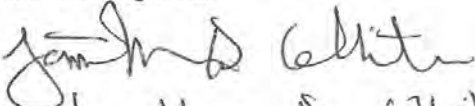
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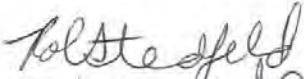
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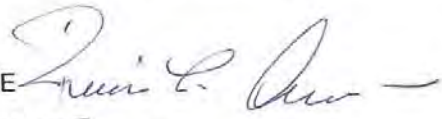
EMAIL

Hoyalaw95@me.com

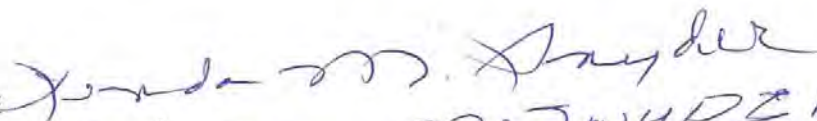
I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Madelaine Dr
EMAIL jondwhite418@gmail.com

SIGNATURE 
PRINTED NAME Robin Stedfeld
ADDRESS 485 Madelaine Dr. LaGrande
EMAIL rstedfeld@yahoo.com

SIGNATURE 
PRINTED NAME Lonnie L. ALLEN 541-963-7720
ADDRESS 410 Balsa Street LA GRANDE, OREGON 97850
EMAIL N/A NONE:

SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. LaGrande Or.
EMAIL

SIGNATURE 
PRINTED NAME Linda M. SNYDER
ADDRESS 491 17702 SHIRE
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robin J. Ostermann*
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaine Dr La Grande, OR 97850
EMAIL

SIGNATURE *Robert J. Ostermann*
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaine Dr. La Grande, OR 97850
EMAIL

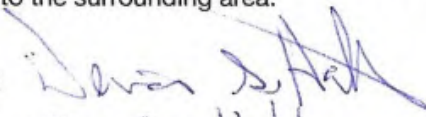
SIGNATURE *John Yeates*
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DRIVE LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com

SIGNATURE *Ruth Schumacher Yeates*
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Dr, La Grande
EMAIL ruthschumacheryeates@gmail.com

SIGNATURE *D. Dak Mammen*
PRINTED NAME D. Dak Mammen
ADDRESS 405 Balsa. La Grande, Or.
EMAIL dmammen@conic.com

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SIGNATURE



PRINTED NAME

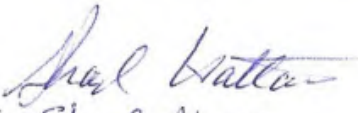
Denise Hattan

ADDRESS

507 Sunset Dr. La Grande, OR

EMAIL

SIGNATURE



PRINTED NAME

Shad Hattan

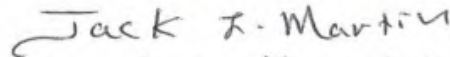
ADDRESS

507 Sunset Dr

EMAIL

hattansl88@gmail.com

SIGNATURE



PRINTED NAME

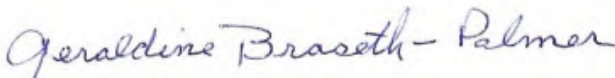
Jack L. Martin

ADDRESS

1412 Gildcrest Dr.

EMAIL

SIGNATURE



PRINTED NAME

GERALDINE BRASETH-PALMER

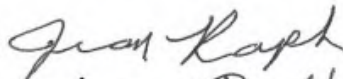
ADDRESS

1602 Gildcrest Drive - LaGrande, Or; 97850

EMAIL



SIGNATURE



PRINTED NAME

Jean RAPH

ADDRESS

1509 Madison Ave LaGrande, OR 97850

EMAIL

jraph19@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Damon Sexton*
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL sexton.damon@gmail.com

SIGNATURE *Coy Sexton*
PRINTED NAME Coy Sexton
ADDRESS 401 Balsa Street, La Grande, OR 97850
EMAIL coytris@gmail.com

SIGNATURE *Melinda McGowan*
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lois Barry*
PRINTED NAME LOIS BARRY
ADDRESS P.O. Box 566, LA GRANDE, OR 97850
EMAIL loisbarry31@gmail.com

SIGNATURE *Cathy Webb*
PRINTED NAME CATHY WEBB
ADDRESS 1700 Cedar St. LA GRANDE, OR 97850
EMAIL thinkski@gmail.com

SIGNATURE *JoAnn Marlette*
PRINTED NAME JOANN MARLETTE
ADDRESS 2031 Court St. #8, Baker City, OR 97814
EMAIL joannmarlette@yahoo.com

SIGNATURE *Keith D. Hudson*
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL KeithDhudson@gmail.com

SIGNATURE *Laura Elly Hudson*
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, LaGrande OR 97850
EMAIL ylwd1910@gmail.com

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande OR 97850
EMAIL acavinot@ecu.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR. 97850
EMAIL joehorst@conic.com

SIGNATURE *Angela Sherer*
PRINTED NAME Angela Sherer
ADDRESS 91 W. Hawthorne Dr La Grande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Merle E Comfort*
PRINTED NAME MERLE E COMFORT
ADDRESS 209 SWAPLO LA GRANDE OR 97850
EMAIL merlecomfort@gmail.com

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
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SIGNATURE *Carol Summers*
PRINTED NAME CAROL S. SUMMERS
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EMAIL carolsummers1938@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 4th Street - LaGrande - OR 97850
EMAIL

SIGNATURE *Gerald D. Juniper*
PRINTED NAME Gerald Darwin Juniper
ADDRESS 406 4th St. LaGrande, OR. 97850
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97w Hawthorne Dr, La Grande, OR 97850
EMAIL asherer@frontier.com.

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 madelaire Dr. La Grande, OR 97850
EMAIL hnull@coni.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

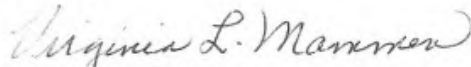
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

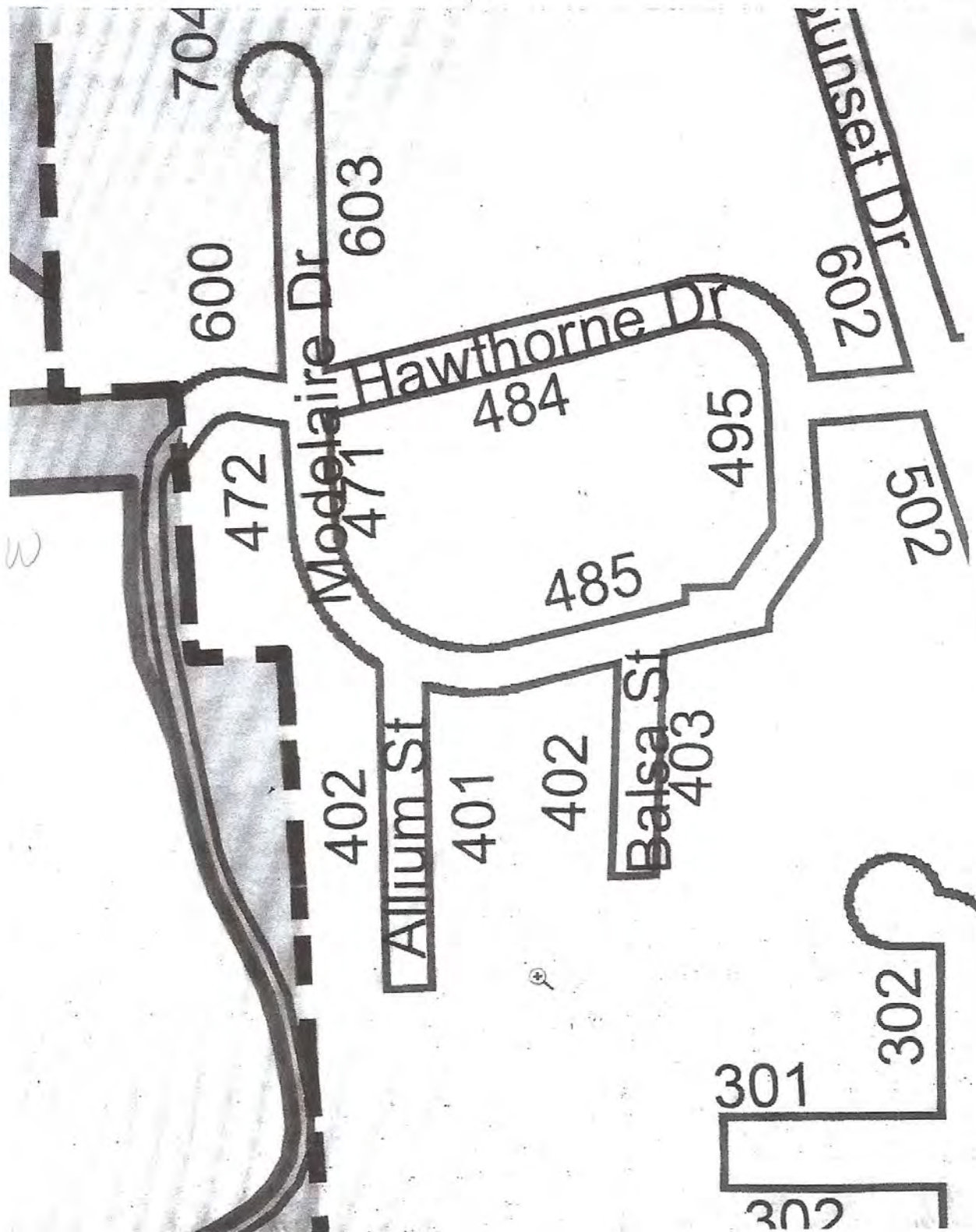


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



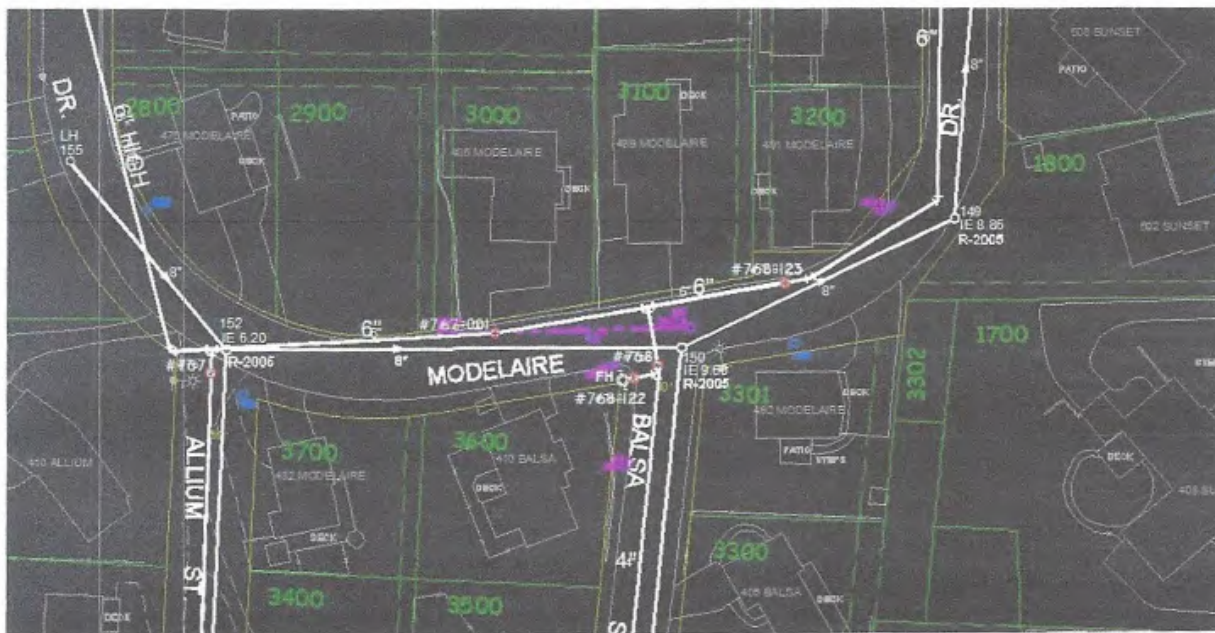
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

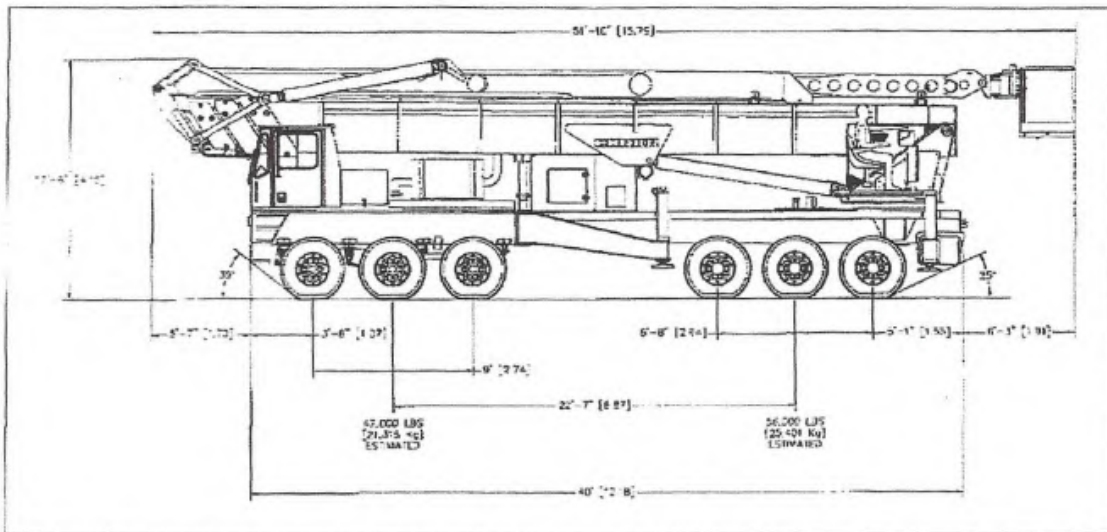


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

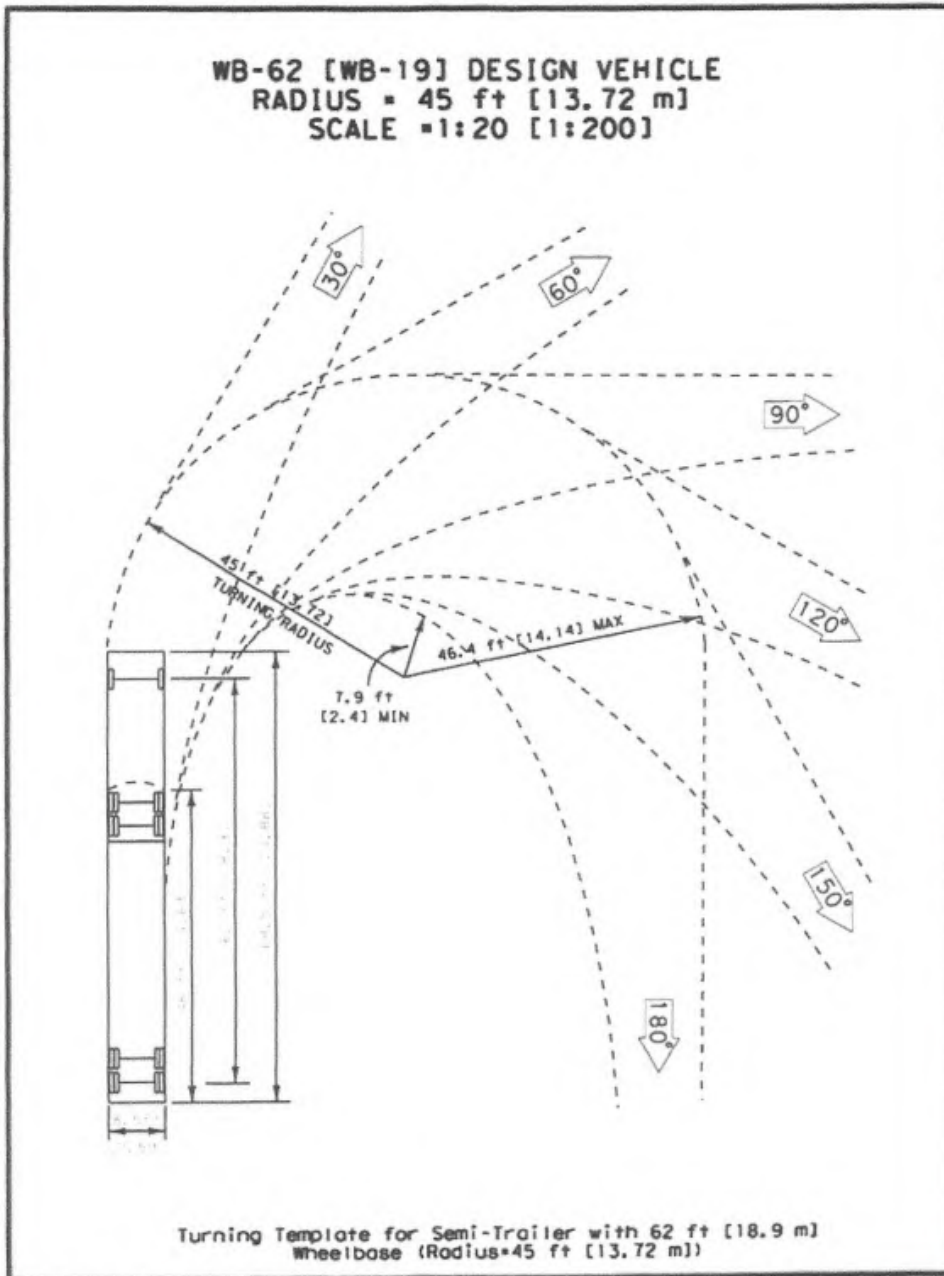


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

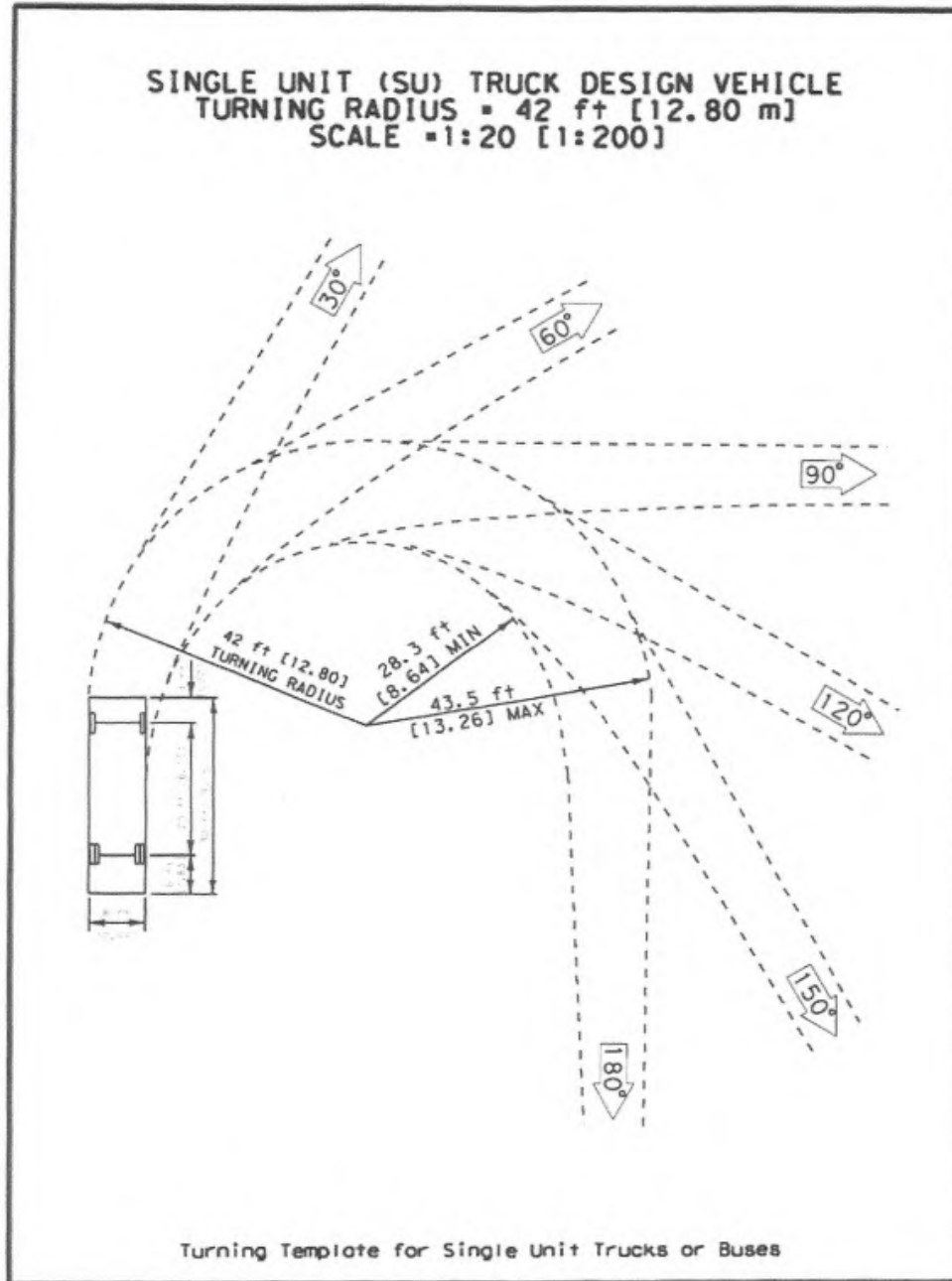


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

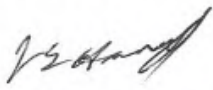
Section 17. TRUCK ROUTES

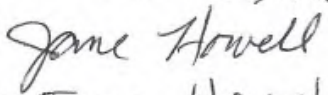
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

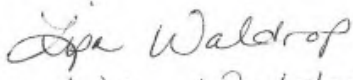
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

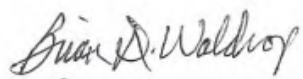
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

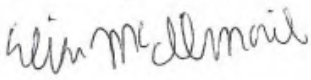
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

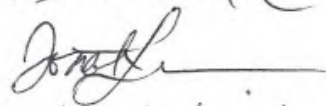

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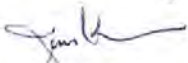
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EMAIL

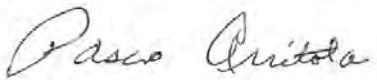
Blake Bars
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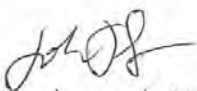
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SIGNATURE 
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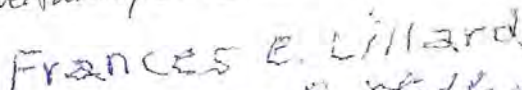
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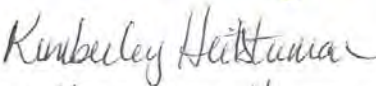
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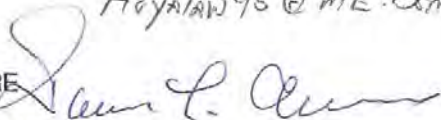
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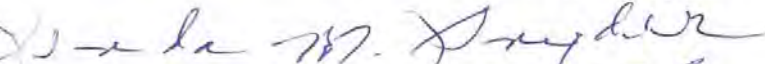
SIGNATURE 
PRINTED NAME M. Jeannette Smith
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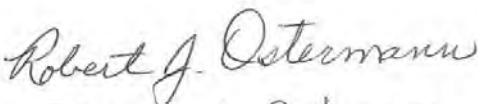
SIGNATURE 
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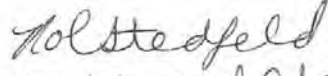
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PRINTED NAME Linda Snyder
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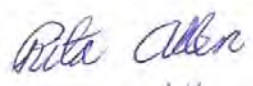
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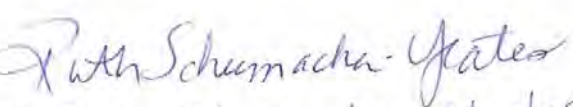
SIGNATURE 
PRINTED NAME Robin J. Ostermann
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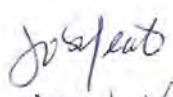
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SIGNATURE 
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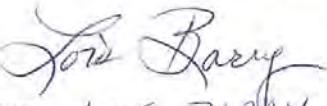
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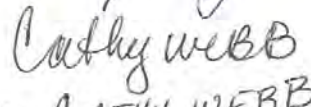
SIGNATURE 
PRINTED NAME Rita Allen
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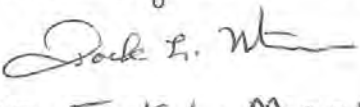
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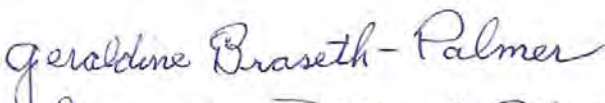

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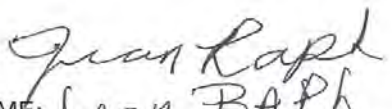
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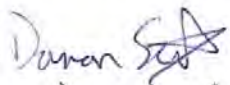
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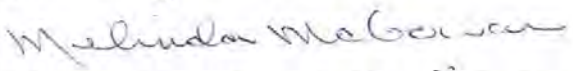
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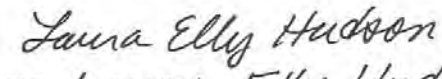
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PRINTED NAME Laura Elly Hudson
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EMAIL ellyhudson@gmail.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL v1wd1910@gmail.com

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
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EMAIL acavinat@ecu.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR
EMAIL joehorst@ecni.com

SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
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EMAIL asherei@frontier.com

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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EMAIL hnull@comi.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street LaGrande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 2009 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL MERLECOMFORT@GMAIL.COM

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL r.maille@icloud.com

SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C Kevan*
ADDRESS 1511 W Ave LG
EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Belketer Ln - La Grande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

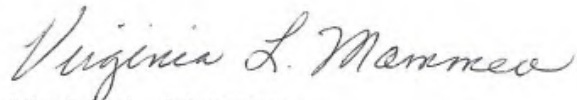
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

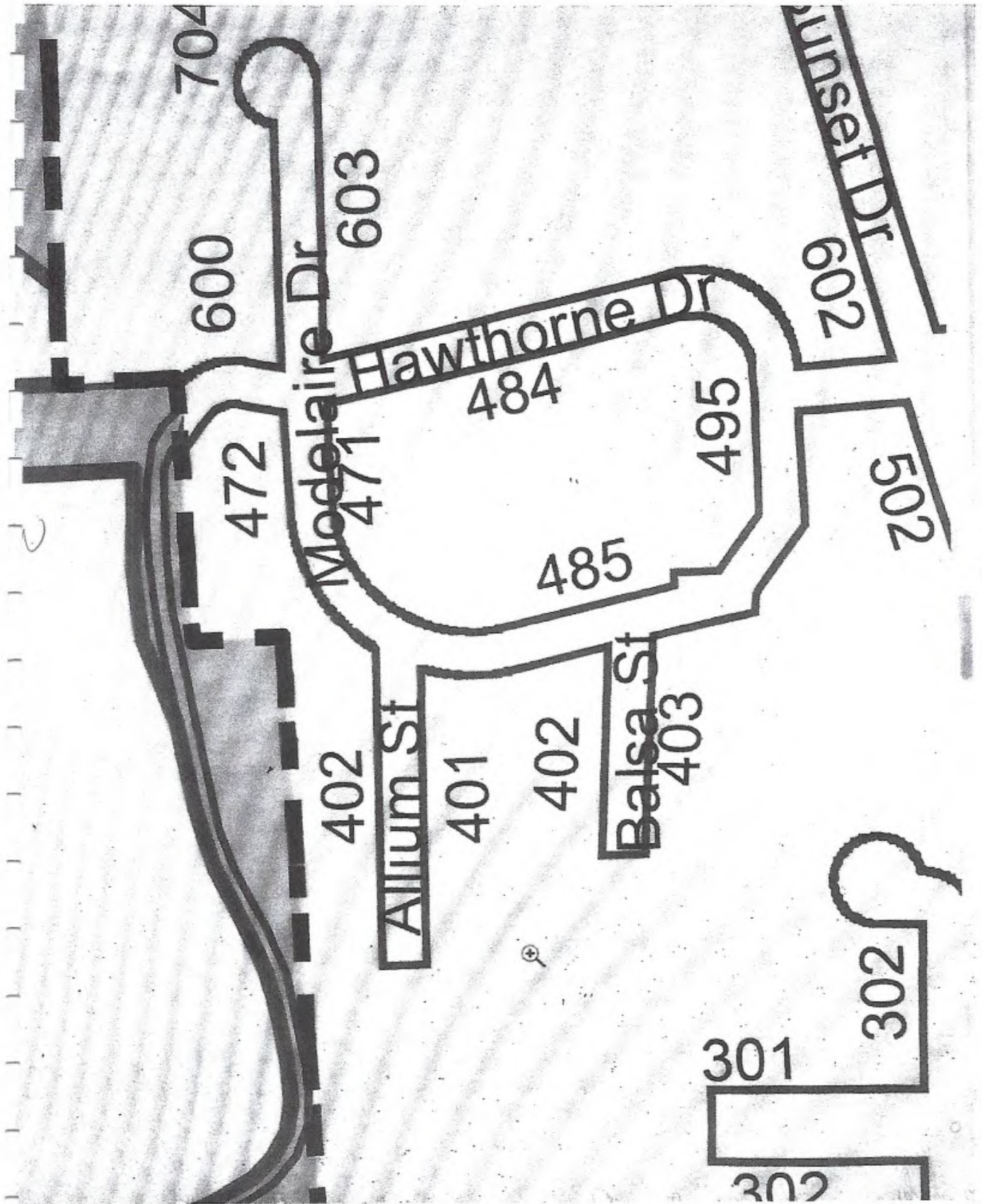


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



2

11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4a

8/5/2019

Oregon Secretary of State Administrative Rules

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

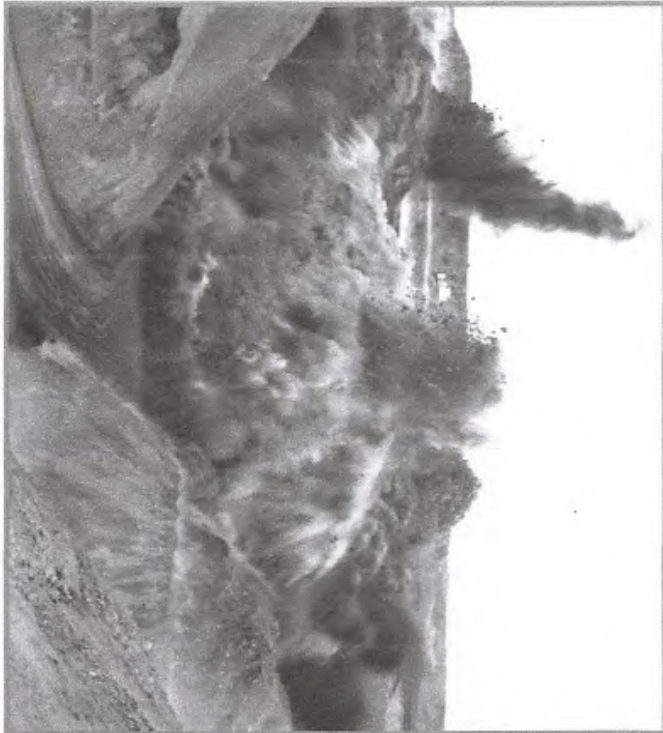
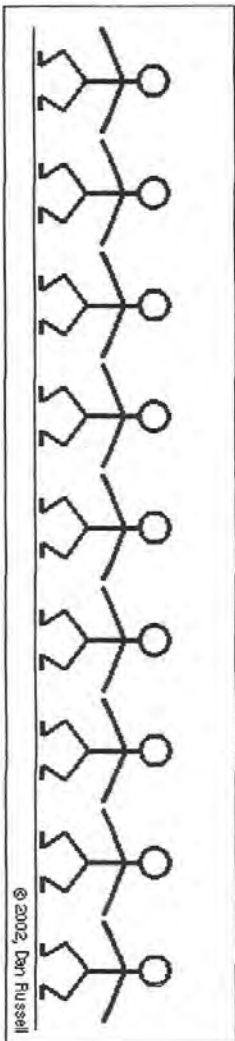


Exhibit 5b

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

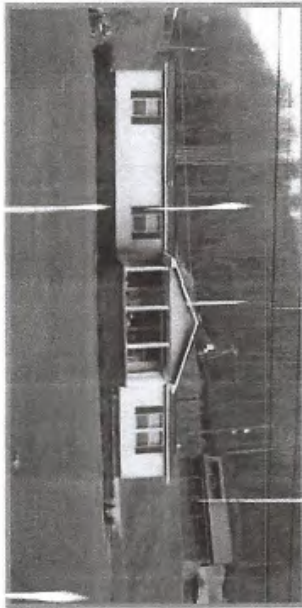
Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

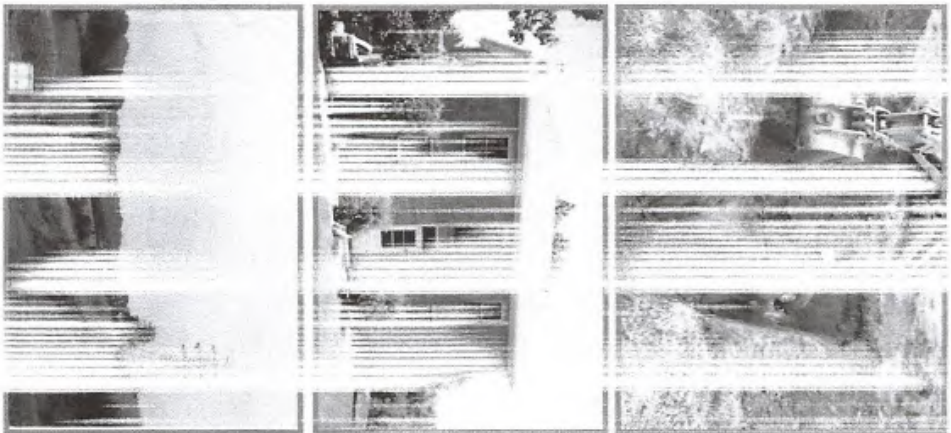
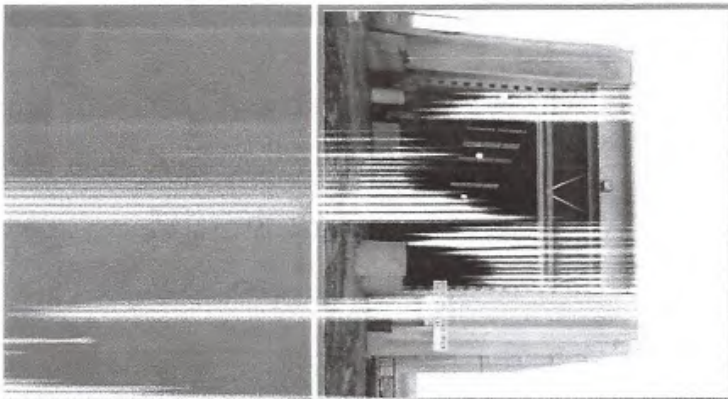
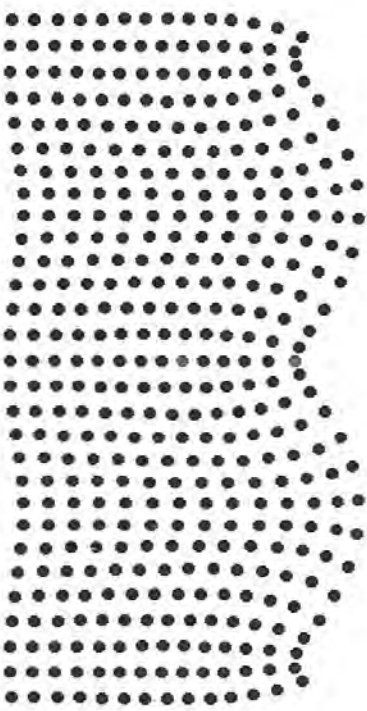


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

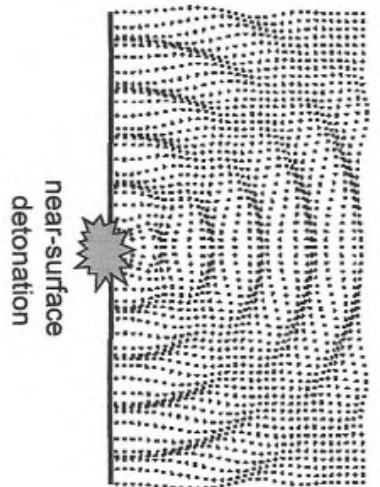
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

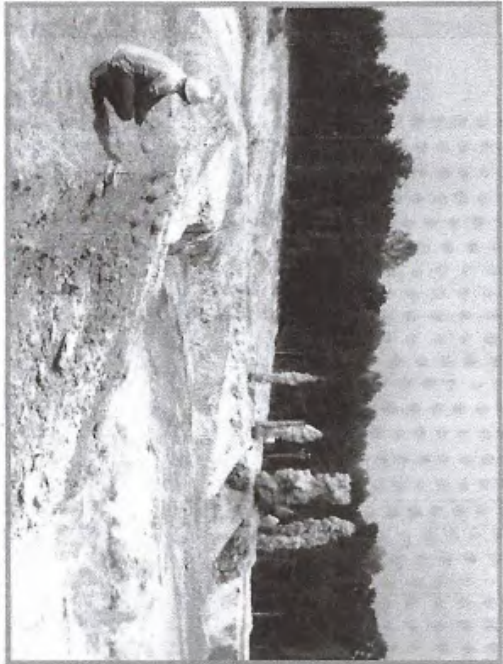
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

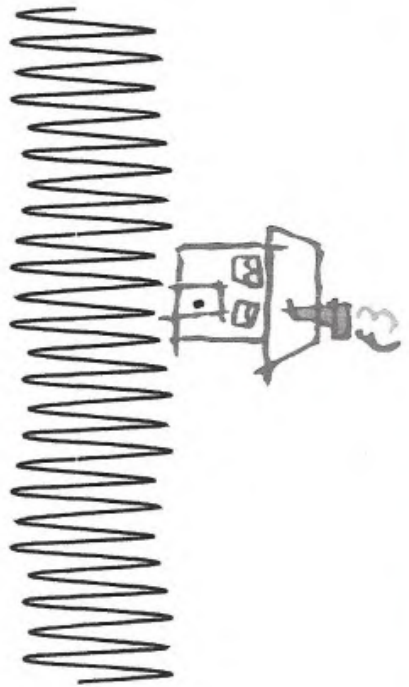
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

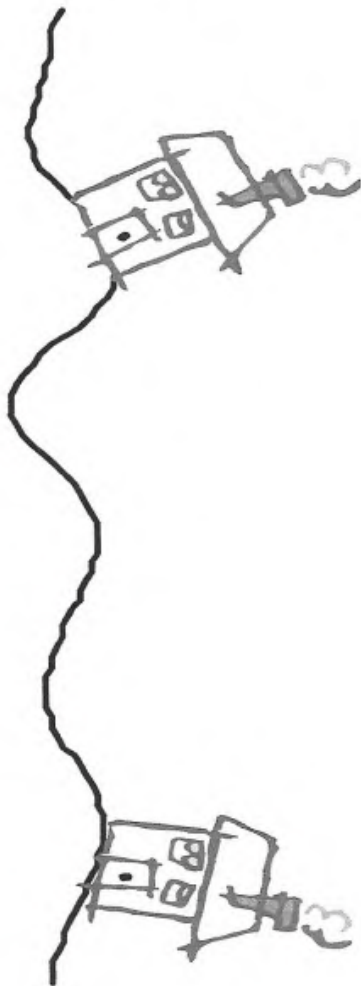


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



Harvard Health Publishing
HARVARD MEDICAL SCHOOL
Trusted advice for a healthier life

A noisy problem - Harvard Health

Exhibit 16
CART | FREE HEALTHBEAT SIGNUP | SHOP | SIGN IN

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What can we help you find?



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HEALTH

MIND &
MOOD

PAIN

STAYING
HEALTHY

CANCER

DISEASES &
CONDITIONS

MEN'S
HEALTH

WOMEN'S
HEALTH

LICENSING

Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

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Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

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Hospital Noise: How Noise Reduction Helps Patients Heal

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Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

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acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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Exhibit 9
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Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

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Exhibit 10a



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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

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Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 1012

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



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Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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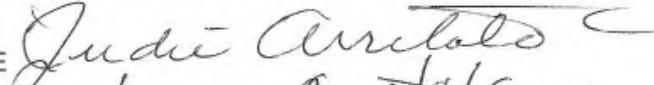


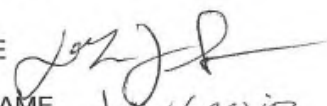
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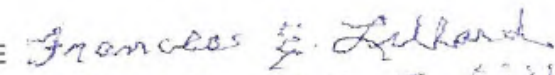
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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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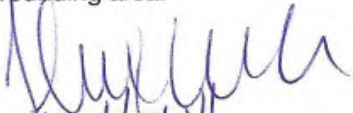
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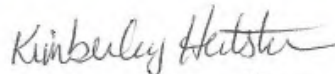
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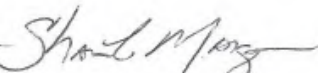
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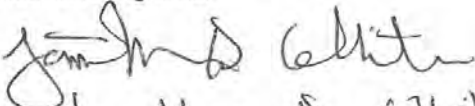
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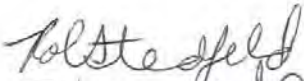
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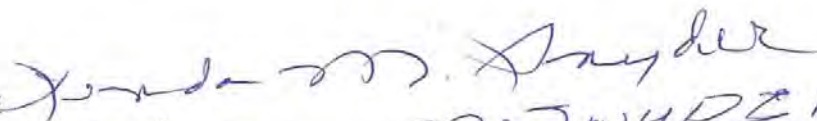
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ADDRESS 495 Modelaine Dr. La Grande, OR 97850
EMAIL

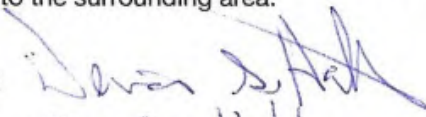
SIGNATURE *John Yeates*
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DRIVE LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com

SIGNATURE *Ruth Schumacher Yeates*
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Dr, La Grande
EMAIL ruthschumacheryeates@gmail.com

SIGNATURE *D. Dak Mammen*
PRINTED NAME D. Dak Mammen
ADDRESS 405 Balsa. La Grande, Or.
EMAIL dmammen@conic.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE



PRINTED NAME

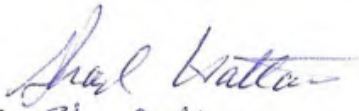
Denise Hattan

ADDRESS

507 Sunset Dr. La Grande, OR

EMAIL

SIGNATURE



PRINTED NAME

Shad Hattan

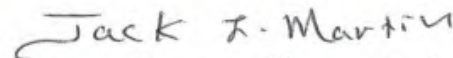
ADDRESS

507 Sunset Dr

EMAIL

hattansl88@gmail.com

SIGNATURE



PRINTED NAME

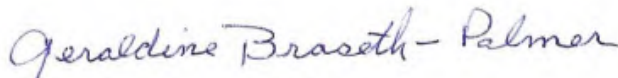
Jack L. Martin

ADDRESS

1412 Gildcrest Dr.

EMAIL

SIGNATURE



PRINTED NAME

GERALDINE BRASETH-PALMER

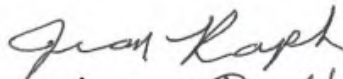
ADDRESS

1602 Gildcrest Drive - LaGrande, Or; 97850

EMAIL



SIGNATURE



PRINTED NAME

Jean RAPH

ADDRESS

1509 Madison Ave LaGrande, OR 97850

EMAIL

jraph19@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Damon Sexton*
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL sexton.damon@gmail.com

SIGNATURE *Coy Sexton*
PRINTED NAME Coy Sexton
ADDRESS 401 Balsa Street, La Grande, OR 97850
EMAIL coytris@gmail.com

SIGNATURE *Melinda McGowan*
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lois Barry*
PRINTED NAME LOIS BARRY
ADDRESS P.O. Box 566, LA GRANDE, OR 97850
EMAIL loisbarry31@gmail.com

SIGNATURE *Cathy Webb*
PRINTED NAME CATHY WEBB
ADDRESS 1700 Cedar St. LA GRANDE, OR 97850
EMAIL thinkski@gmail.com

SIGNATURE *JoAnn Marlette*
PRINTED NAME JOANN MARLETTE
ADDRESS 2031 Court St. #8, Baker City, OR 97814
EMAIL joannmarlette@yahoo.com

SIGNATURE *Keith D. Hudson*
PRINTED NAME Keith D. Hudson
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EMAIL KeithDhudson@gmail.com

SIGNATURE *Laura Elly Hudson*
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, LaGrande OR 97850
EMAIL rlwd1910@gmail.com

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande OR 97850
EMAIL acavinot@ecu.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
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EMAIL joehorst@conic.com

SIGNATURE *Angela Sherer*
PRINTED NAME Angela Sherer
ADDRESS 91 W. Hawthorne Dr La Grande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Merle E Comfort*
PRINTED NAME MERLE E COMFORT
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EMAIL merlecomfort@gmail.com

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
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EMAIL rmaille@icloud.com

SIGNATURE *Carol Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Beketen Lane La Grande OR.
EMAIL carolsummers1938@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 4th Street - LaGrande - OR 97850
EMAIL

SIGNATURE *Gerald D. Juniper*
PRINTED NAME Gerald Darwin Juniper
ADDRESS 406 4th St. LaGrande, OR. 97850
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97w Hawthorne Dr, La Grande, OR 97850
EMAIL asherer@frontier.com.

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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EMAIL hnull@conic.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

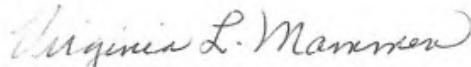
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

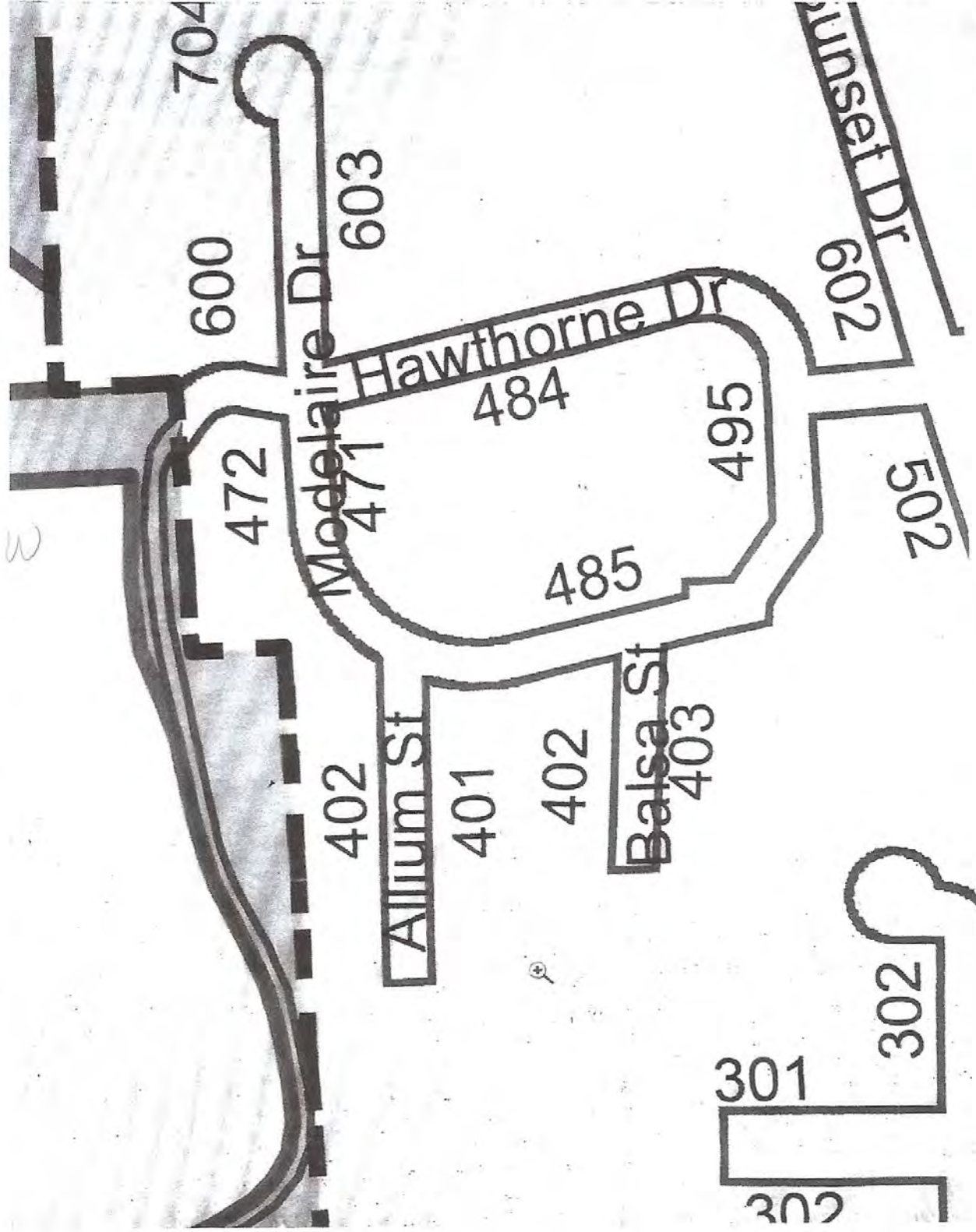


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



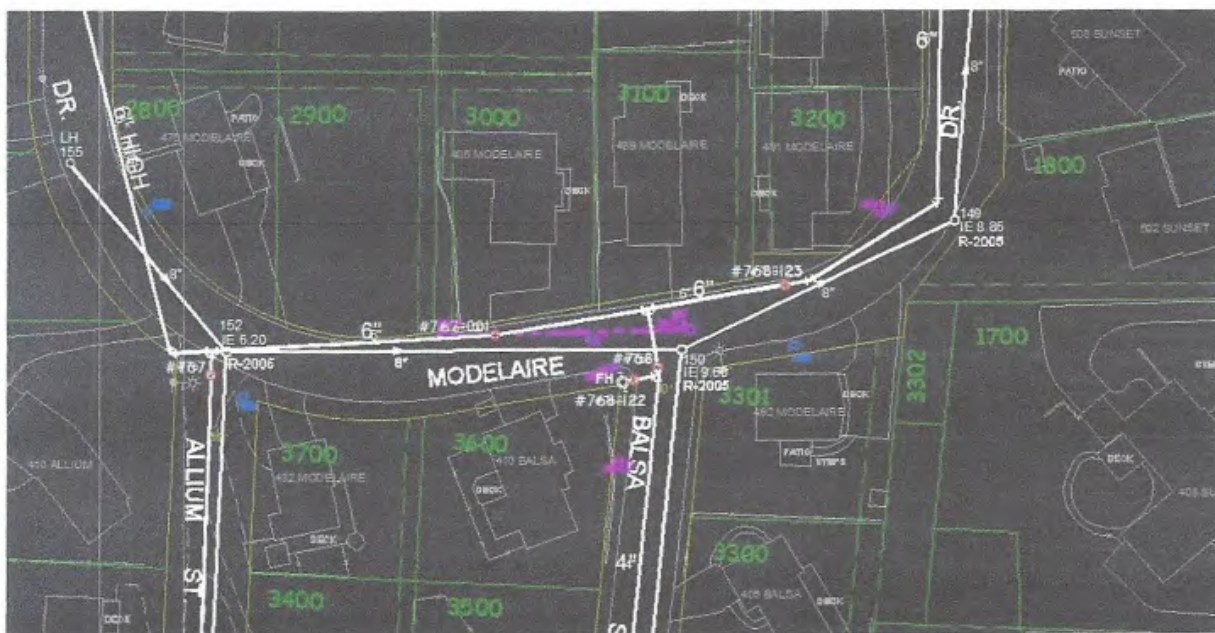
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

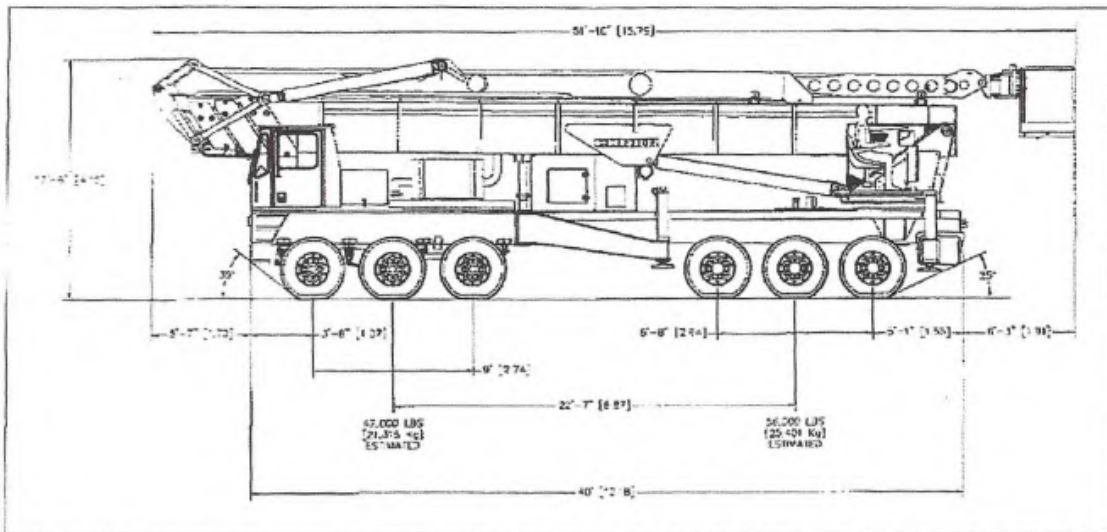


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-all, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

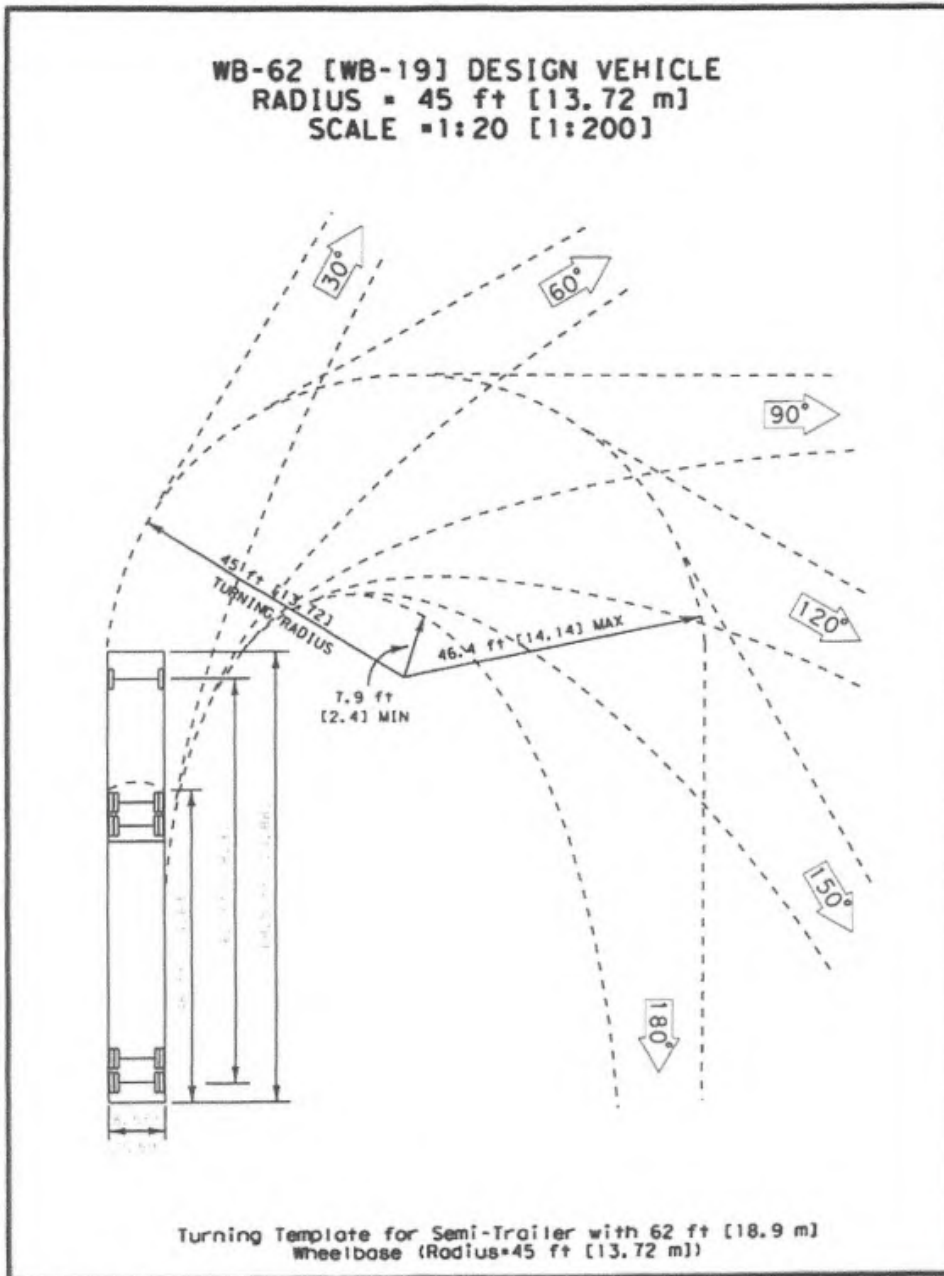


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

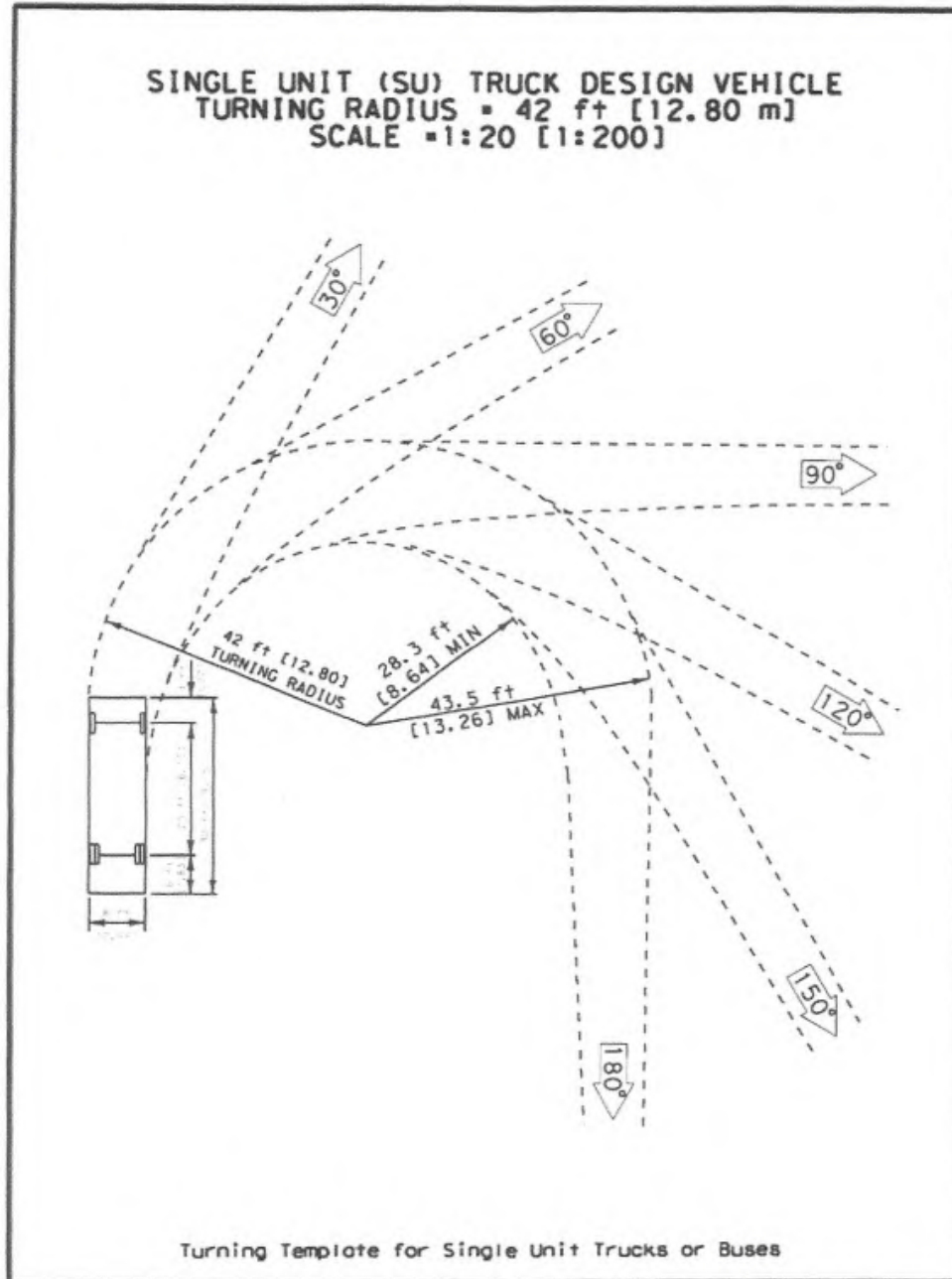


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

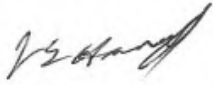
Section 17. TRUCK ROUTES

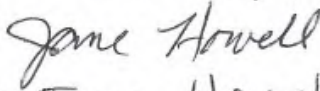
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

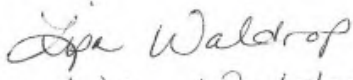
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

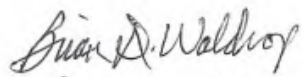
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

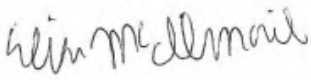
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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ADDRESS

EMAIL



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SIGNATURE

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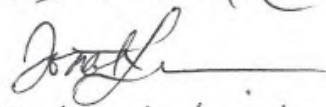

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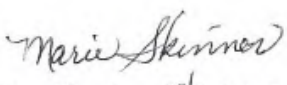

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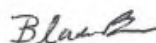

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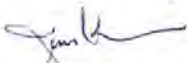
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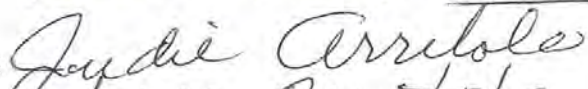
EMAIL

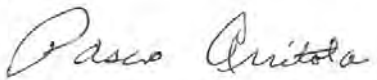

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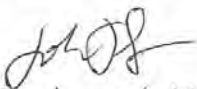
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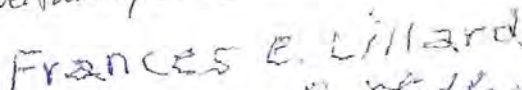
SIGNATURE 
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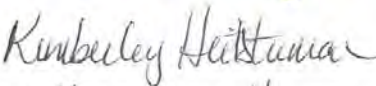
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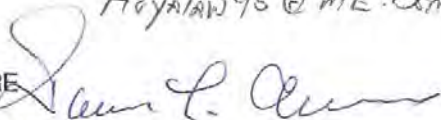
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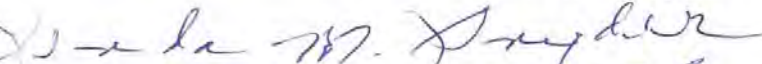
SIGNATURE 
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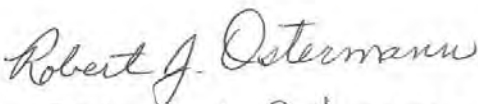
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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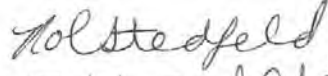
SIGNATURE 
PRINTED NAME Linda Snyder
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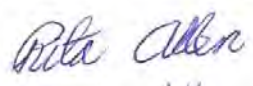
SIGNATURE 
PRINTED NAME Robert J. Ostermann
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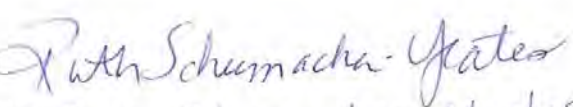
SIGNATURE 
PRINTED NAME Robin J. Ostermann
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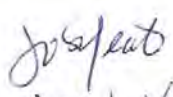
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SIGNATURE 
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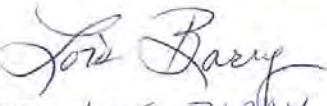
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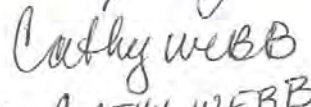
SIGNATURE 
PRINTED NAME Rita Allen
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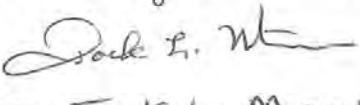
SIGNATURE 
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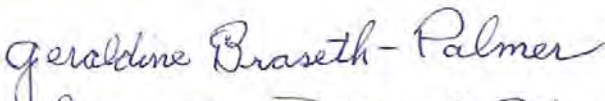

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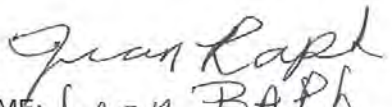
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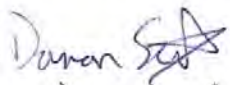
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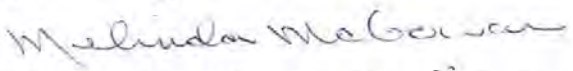
SIGNATURE 
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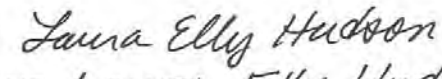
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SIGNATURE *Gary D. Pierson*
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ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
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EMAIL asherei@frontier.com

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street LaGrande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
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PRINTED NAME CAROL S. SUMMERS
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EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
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TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

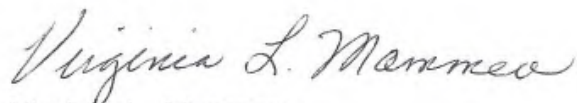
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

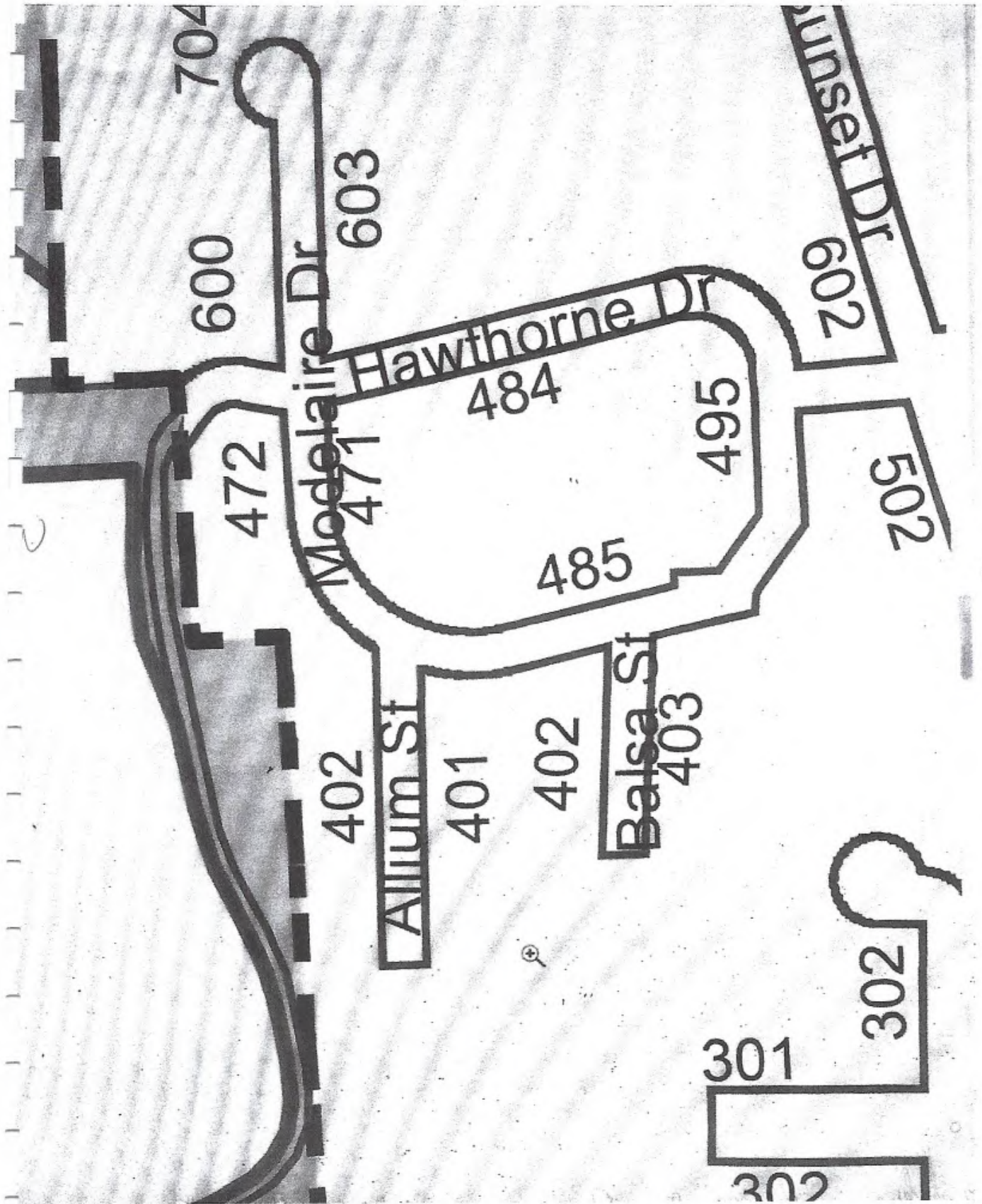


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

3.3 Predicted Noise Levels

OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation of the proposed facility.

3.3.1 Construction Noise

3.3.1.1 Predicted Construction Noise Levels

Project construction will occur sequentially, moving along the length of the Project route, or in other areas such as near access roads, structure sites, conductor pulling sites, and staging and maintenance areas. Overhead transmission line construction is typically completed in the following stages, but various construction activities may overlap, with multiple construction crews operating simultaneously:

- Site access and preparation
- Installation of structure foundations
- Erecting of support structures
- Stringing of conductors, shield wire, and fiber-optic ground wire

The following subsections discuss certain construction activities that will periodically generate audible noise, including blasting and rock breaking, implosive devices used during conductor stringing, helicopter operations, and vehicle traffic.

Blasting and Rock Breaking

Blasting is a short-duration event as compared to rock removal methods, such as using track rig drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills. Modern blasting techniques include the electronically controlled ignition of multiple small-explosive charges in an area of rock that are delayed fractions of second, resulting in a total event duration that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

Lattice tower foundations for the Project typically will be installed using drilled shafts or piers; however, if hard rock is encountered within the planned drilling depth, blasting may be required to loosen or fracture the rock to reach the required depth to install the structure foundations. Final blasting locations will not be identified until an investigative geotechnical survey of the analysis area is conducted during the detailed design.

The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with applicable state and local blasting regulations, including the use of properly licensed personnel and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in Exhibit G, Attachment G-5.

Implosive Devices

An implosive conductor splice consists of a split-second detonation with sound and flash. Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be developed by an individual certified and licensed to perform the work. The plan will communicate all safety and technical requirements including, but not limited to, delineation of the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4a

8/5/2019

Oregon Secretary of State Administrative Rules

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

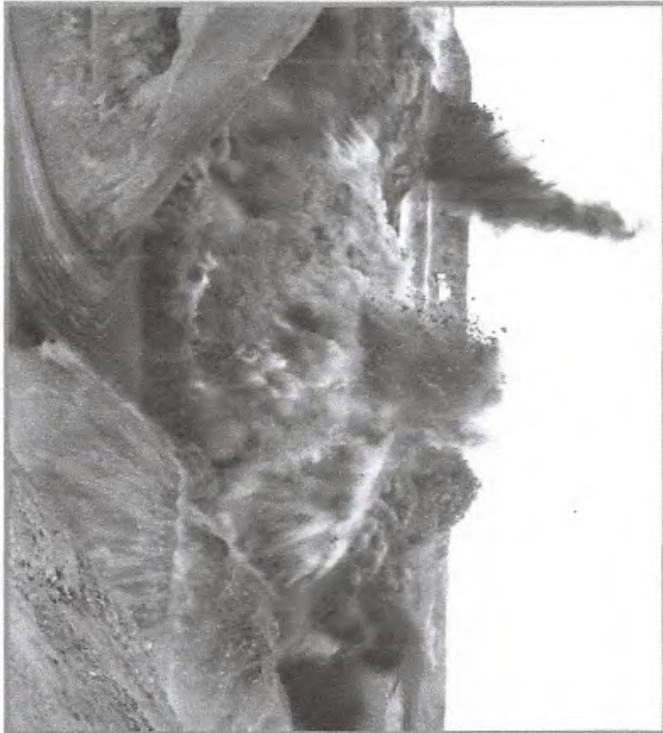
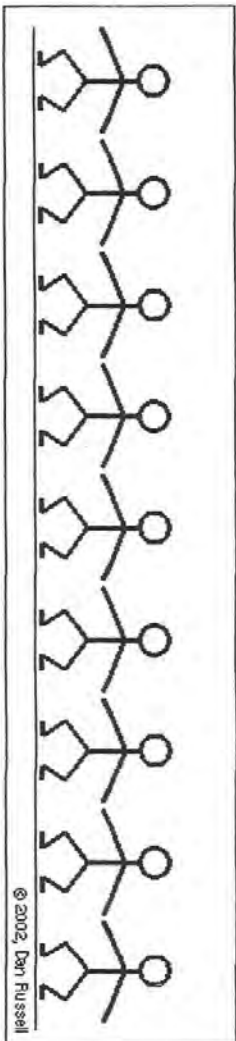


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

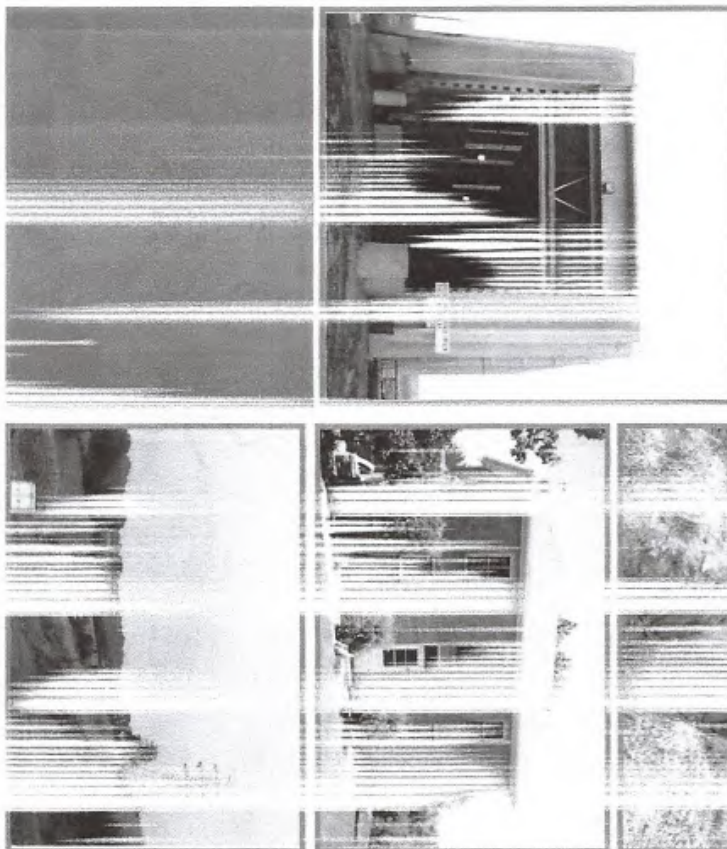
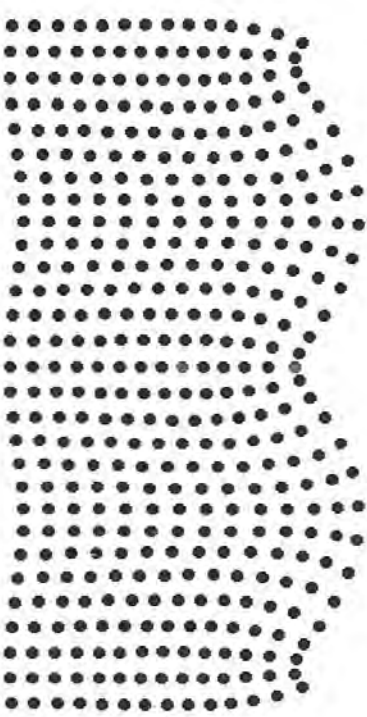


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

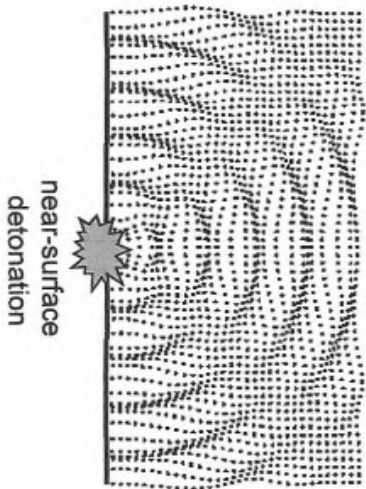
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

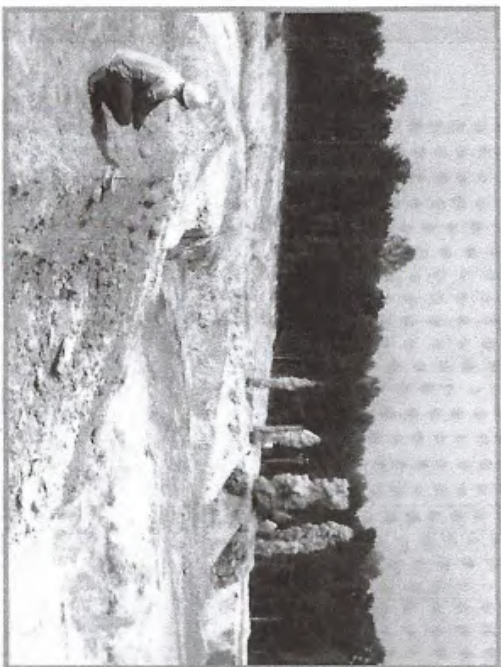
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

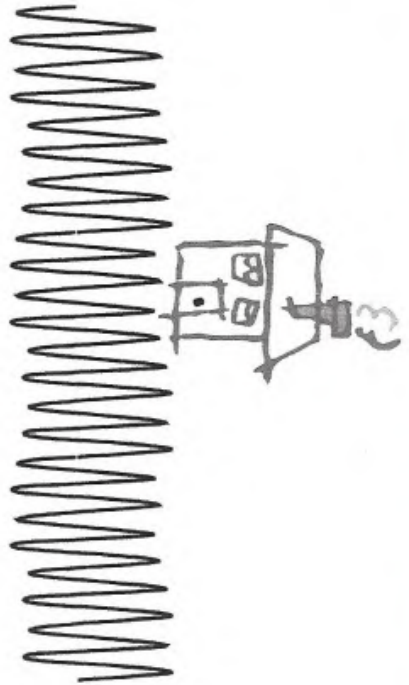
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

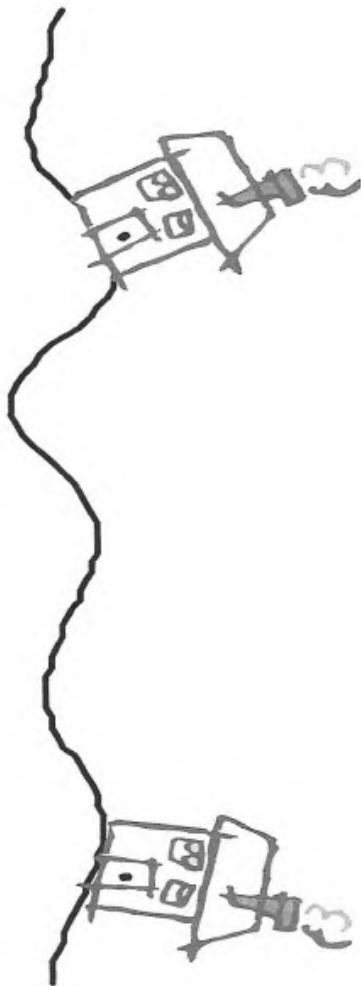


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



Harvard Health Publishing
HARVARD MEDICAL SCHOOL
Trusted advice for a healthier life

A noisy problem - Harvard Health

Exhibit 16
CART | FREE HEALTHBEAT SIGNUP | SHOP | SIGN IN

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What can we help you find?



HEART
HEALTH

MIND &
MOOD

PAIN

STAYING
HEALTHY

CANCER

DISEASES &
CONDITIONS

MEN'S
HEALTH

WOMEN'S
HEALTH

LICENSING

Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

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acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10/12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q ☰

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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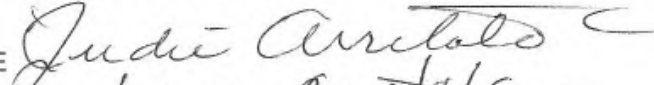


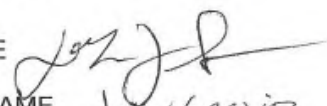
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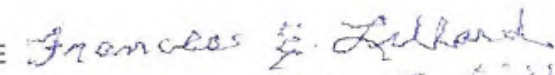
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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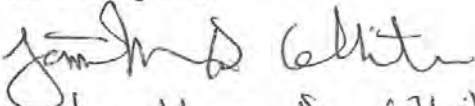
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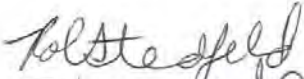
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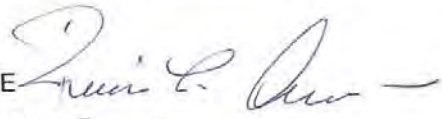
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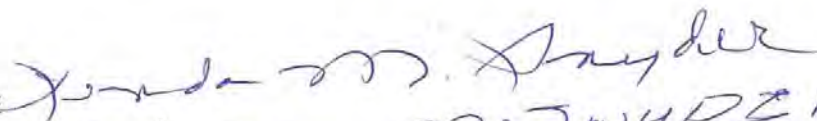
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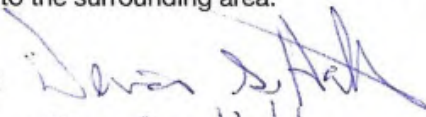
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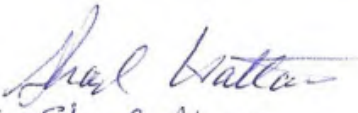
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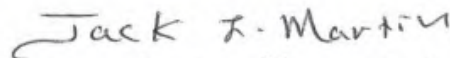
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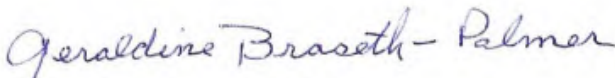
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PRINTED NAME

GERALDINE BRASETH-PALMER

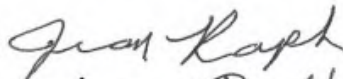
ADDRESS

1602 Gildcrest Drive - LaGrande, Or; 97850

EMAIL



SIGNATURE



PRINTED NAME

Jean RAPH

ADDRESS

1509 Madison Ave LaGrande, OR 97850

EMAIL

jraph19@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Damon Sexton*
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL sexton.damon@gmail.com

SIGNATURE *Coy Sexton*
PRINTED NAME Coy Sexton
ADDRESS 401 Balsa Street, La Grande, OR 97850
EMAIL Coytris@gmail.com

SIGNATURE *Melinda McGowan*
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Lois Barry*
PRINTED NAME LOIS BARRY
ADDRESS P.O. Box 566, LA GRANDE, OR 97850
EMAIL loisbarry31@gmail.com

SIGNATURE *Cathy Webb*
PRINTED NAME CATHY WEBB
ADDRESS 1700 Cedar St. LA GRANDE, OR 97850
EMAIL thinkski@gmail.com

SIGNATURE *JoAnn Marlette*
PRINTED NAME JOANN MARLETTE
ADDRESS 2031 Court St. #8, Baker City, OR 97814
EMAIL joannmarlette@yahoo.com

SIGNATURE *Keith D. Hudson*
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL KeithDhudson@gmail.com

SIGNATURE *Laura Elly Hudson*
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

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SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, LaGrande OR 97850
EMAIL ylw1910@gmail.com

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande OR 97850
EMAIL acavinot@ecu.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR. 97850
EMAIL joehorst@conic.com

SIGNATURE *Angela Sherer*
PRINTED NAME Angela Sherer
ADDRESS 91 W. Hawthorne Dr La Grande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Merle E Comfort*
PRINTED NAME MERLE E COMFORT
ADDRESS 209 SWAPLO LA GRANDE OR 97850
EMAIL merlecomfort@gmail.com

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL rmaille@icloud.com

SIGNATURE *Carol Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Bekelen Lane La Grande OR.
EMAIL carolsummers1938@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 4th Street - LaGrande - OR 97850
EMAIL

SIGNATURE *Gerald D. Juniper*
PRINTED NAME Gerald Darwin Juniper
ADDRESS 406 4th St. LaGrande, OR. 97850
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97w Hawthorne Dr, La Grande, OR 97850
EMAIL asherer@frontier.com.

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 madelaire Dr. La Grande, OR 97850
EMAIL hnull@eon.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Cheryl Arrant <Cheryl@ibew125.com>
Sent: Thursday, June 20, 2019 8:32 AM
To: B2H DPOComments * ODOE
Cc: Marcy Grail
Subject: B2H Project Comments
Attachments: 6-20-19 K. Tardaewether OR Dept of Energy - B2H Support IBEW Local 125.Signed.PDF

Good Morning,

Please see the attached letter from IBEW Local 125.

Thank you,

CHERYL ARRANT
IBEW LOCAL 125
ADMINISTRATIVE ASST. III
17200 N.E. SACRAMENTO STREET
PORTLAND, OR 97230
PHONE: (503) 262-9125
FAX: (503) 262-9947





IBEW Local 125

International Brotherhood of Electrical Workers

June 20, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR 97301

Dear Kellen,

On behalf of the International Brotherhood of Electrical Workers (IBEW) Local 125 and its nearly 3,600 members who work in the electric utility industry throughout the Pacific Northwest, I offer the following comments in support of the Boardman to Hemingway Transmission Line.

The B2H Project is necessary for the Northwest and Intermountain West regions to ensure that reliable power is safely available in this part of our country. Without this line, it will become increasingly difficult, if not impossible, to meet demand needs in either region. This line will allow an exchange of electricity to whichever area has the highest demand. Providing low-cost energy is important to the economic stability of our regions, and reducing restraints on the regional transmission system will improve system reliability.

There will be tremendous job opportunities not only for construction and/or utility workers, but the correlation between affordable, safe, and reliable electricity to jobs is well established. The impact to the five Oregon counties should be visible during construction but will provide benefits for decades to come beyond those counties. By addressing the growing need to transfer renewable energy between the regions and the timing of renewable assets better supporting each region, there will be lower costs to overall production of power as well as reduced need for additional generation facilities to be built.

Moving through Morrow, Umatilla, Union, Baker, and Malheur counties in Oregon as well as Owyhee county in Idaho, and covering nearly 300 miles, this 500-kilovolt transmission line will continue to generate public interest. Like most Oregonians, IBEW Local 125 members value the resources and scenery that our state offers, so we understand concerns about disturbing Oregon's natural beauty. And perhaps more than some, we clearly understand the constraints facing our transmission grid which is why we support the construction of the B2H project. I respectfully request your concurrence with the need to move forward with approving this project.

I am happy to provide additional information or clarification about these comments if warranted. Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Travis Eri".

Travis Eri
Business Manager
IBEW Local 125

TE:cln
opeiu#11 afl-cio
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IBEW Local 125

International Brotherhood of Electrical Workers

RECEIVED

JUN 24 2019

June 20, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR 97301

DEPARTMENT OF ENERGY

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Sincerely,

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Travis Eri
Business Manager
IBEW Local 125

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opeiu#11 afl-cio
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IBEW Local 125

International Brotherhood of Electrical Workers

June 11, 2019

Mr. Barry Beyeler
Chair
Energy Facility Siting Council
200 City Center Circle
Boardman, OR 97818

Dear Mr. Beyeler,

On behalf of the International Brotherhood of Electrical Workers (IBEW) Local 125 and its nearly 3,600 members who work in the electric utility industry throughout the Pacific Northwest, I offer the follow comments in support of the Boardman to Hemingway Transmission Line.

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Travis Eri
Business Manager
IBEW Local 125

TE:cln
opeiu#11 afl-cio
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Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) TRAVIS ERI

Mailing Address (mandatory) 17200 NE SACRAMENTO ST
PORTLAND OR 97230

Phone Number (optional) (503) 784 1157 Email Address (optional) _____

Today's Date: 6-27-19

Do you wish to make oral public testimony at this Hearing: Yes X No _____

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Page 30

1 factor to that environment.
2 There are other problems on our farm that I
3 have with this. We have an airstrip that will probably
4 be rendered useless because of the transmission lines'
5 location; we have Internet communication that could be
6 interrupted; and the cropping system that we use, most
7 likely I can't use an aerial applicator in that area.
8 It would make it extraordinarily more expensive to fly
9 next to this transmission line. So I have a lot to
10 lose. I have a lot to overcome if this happens.
11 So I appreciate the Council's consideration of
12 what I hoped to have made very specific, very real, very
13 credible information. We're talking about an
14 environmental problem and we're talking about destroying
15 a resource that could probably, in my opinion, there
16 might be better ways to serve the needs of power
17 somewhere else than making me live under such a
18 disastrous risk from the transmission lines.
19 Thank you very much.
20 HEARING OFFICER WEBSTER: Thank you,
21 Mr. Myers.
22 Next up is John -- is it Luciani?
23 MR. JOHN LUCIANI: I'm not quite ready,
24 please.
25 HEARING OFFICER WEBSTER: Do you want me to

Page 31

1 put you at the end of the line?
2 MR. JOHN LUCIANO: Please.
3 HEARING OFFICER WEBSTER: Next is Travis Eri
4 or Eri?
5 MR. TRAVIS ERI: That's correct.
6 Hello. Travis Eri. It's T-r-a-v-i-s, E-r-i.
7 Address is 17200 Northeast Sacramento Street, Portland,
8 Oregon 97230.
9 So to start with, my background, I'm a
10 journeyman lineman, having worked in the Pacific
11 Northwest, earning my certificate right here throughout
12 Oregon, Washington, and Idaho. I currently am the
13 business manager for International Brotherhood of
14 Electrical Workers, Local Union 125. And IBEW 125
15 represents the electrical workers throughout Oregon,
16 Washington, Idaho, and Montana, consisting of 3600
17 members in the utility and construction industry in all
18 sectors of construction, transmission, and distrib- --
19 or generation, transmission, and distribution services.
20 I'd like to start by recognizing all those who
21 may be in opposition of this project for various
22 reasons. My testimony is not to minimize any of their
23 concerns that they are here discussing today.
24 The IBEW was formed in 1891, and our purpose
25 and our mission was to stand for improving safety in the

Page 32

1 electrical industry. After over 125 years, our mission
2 still stands as that.
3 The things that I want to bring to light are
4 the IBEW is in agreement with this project. We're in
5 support of this project for all the reasons identified
6 by Idaho Power. But the most important is for balancing
7 the renewable resources throughout this region and the
8 Intermountain West.
9 When we look at the constraints that are on
10 current transmission right-of-ways, those constraints
11 lend to high-capacity time periods in which additional
12 transmission lines throughout our regions can help
13 minimize I think some of these fire concerns that a lot
14 of the public has. The more that a transmission line is
15 overloaded, the more likelihood or the potential for the
16 system to fail, and the more likelihood of those fires
17 could occur.
18 I'm not here to discuss the potential routing
19 as far as the benefits or the considerations that went
20 in prior to this. My testimony is just to discuss the
21 imminent need. Transmission lines throughout this
22 region as well as connecting the Intermountain West are
23 needed in order to balance the peak-and-valley nature of
24 our renewable portfolios.
25 The energy imbalance market is something that

Page 33

1 Pacific Power started several years ago, and many of the
2 utilities have joined into this. And it's nothing more
3 than basically sharing transmission authority between
4 different regions and taking advantage of
5 peak-and-valley natures of renewable portfolios.
6 What it allows for is a reduction in having to
7 spend resources to create new generation, allowing for a
8 lot of our carbon-emitting generation facilities to be
9 able to scale back and take advantage of excess
10 renewable in other areas.
11 The Boardman to Hemingway line, in what I have
12 seen from the studies, will do just that. It will
13 balance out renewable portfolios within the
14 Intermountain West, and the Oregon and Washington
15 Columbia River Gorge renewable portfolio, taking
16 advantage of those resources at different times when
17 they will be able to exchange power.
18 The additional benefit, other than easements
19 to those that are affected by the transmission
20 corridors, are also going to be felt through the
21 reduction in necessary transmission -- or sorry,
22 necessary generation being built in order to cover the
23 electrical needs of our communities.
24 And with Bonneville Power Administration
25 joining the energy imbalance market, all of the

Page 34

1 communities served along this right-of-way that utilize
2 Bonneville Power Administration energy, will be able to
3 have their rates affected by this in a positive manner.
4 Bonneville will be able to experience the net savings of
5 the energy imbalance market, which is a net benefit to
6 all of the ratepayers in this region.
7 The additional construction of the project, of
8 course, is a time-limiting benefit within the region,
9 but also the construction of the project should also
10 benefit the entire region wherever the work occurs.
11 We have a lot of electrical workers that would
12 be benefited from this kind of construction. Our
13 generation facilities, all of you are familiar with
14 Boardman, the coal plant and the building of the
15 gas-fired plant. Those additional capacities continue
16 to be levied throughout the transmission corridors.
17 I think that's all I'll submit for oral
18 comment. We will be submitting written testimony that
19 outlines some of those benefits with the electrical or
20 the energy imbalance market, as well as some of the
21 other workforce studies throughout the region.
22 Thank you.
23 HEARING OFFICER WEBSTER: Thank you very much.
24 Next up is Brian Doherty.
25 MR. BRIAN DOHERTY: Hello. My name is Brian

Page 35

1 Doherty, B-r-i-a-n, D-o-h-e-r-t-y. My address is 70516
2 Highway 207 in Lexington, Oregon.
3 As I said, my name is Brian Doherty. I'm a
4 fourth-generation dryland wheat farmer in central Morrow
5 County. I have five children. My wife Peggy and my son
6 Dan are here with me today.
7 The B2H project will cut a nearly 4-mile swath
8 through our family's farm. My great-grandfather
9 established our farm at Sandhollow in 1885. It's not an
10 easy place to farm and survive economically. And I
11 think some of my neighbors would agree with me on that.
12 Over the years our family has supported
13 development that improved life for everyone in our area.
14 We have over 20 miles of state and county roads cutting
15 through our property. With right-of-ways, that's a lot
16 of land removed from production.
17 There's a substation just above our farmstead
18 and many standard power lines on our property. In
19 addition, there are phone lines, fiberoptic lines, and a
20 gravel borrow pit for the State. Historically we have
21 been very cooperative with these projects for the
22 greater good.
23 I oppose the B2H project coming through my
24 family's property as it is currently proposed. This
25 project will permanently change the landscape and

Page 36

1 usefulness of our property. It will limit the future
2 development opportunities on our property. It will make
3 farming more expensive, less efficient, and our
4 production will be lowered. We can't afford that.
5 We have never been "not my backyard" people,
6 our family. But if you're going to cut a swath through
7 our land 250 feet wide, make the compensation fair.
8 Paying for an easement with a single payment, with the
9 possibility of a judge determining what's fair, doesn't
10 sound like a good deal to us.
11 In 2012, we had the federal government shut
12 down the installation of windmills on our property. I'm
13 not sure we ever got the true explanation of why that
14 was done.
15 In the early 1980s, my father had irrigation
16 that he legally developed on the west side of our
17 property shut down by the State with regulations that
18 came later on the critical groundwater area. This was
19 an economic blow that was very difficult for us to
20 overcome. Forgive us if we have misgivings about what
21 the government will deem fair.
22 I don't believe I have the political or
23 economic clout to stop Idaho Power, PacifiCorp, and BPA.
24 But I would like to propose an ongoing lease payment
25 based on each tower or a portion of receipts from

Page 37

1 wielding costs returned to the landowner based on how
2 many towers are on their land. And I'd like to credit
3 my neighbor Roger Morter for that idea.
4 You can respond that it isn't done this way,
5 but that doesn't mean it can't be. I think most of the
6 landowners would find this more agreeable. We are not
7 opposed to prudent development for the common good. But
8 we are losing more than the land under these towers.
9 My view of the Gleason Butte from my tractor
10 seat will forever be altered. I love that view, I've
11 earned that view. We can work with you, but be fair.
12 Recognize that we are giving up more than an easement
13 here. Compensate us fairly, that's all we ask.
14 Thank you.
15 HEARING OFFICER WEBSTER: Next up is Elizabeth
16 Ashbeck.
17 MS. ELIZABETH ASHBECK: E-l-i-z-a-b-e-t-h,
18 A-s-h-b-e-c-k. Mailing address 71384-A, as in "apple,"
19 Highway 207, Echo, Oregon 97826. The reason why it's in
20 Echo and not Lexington is they won't deliver to where we
21 live. So we go 6 miles to go get our mail.
22 Which is why I'm here. I don't have anything
23 on any studies. I have been in agreement with Sam and
24 Brian both of what they have said. I appreciate your
25 time.

TARDAEWETHER Kellen * ODOE

From: George Lynch <George.Lynch@oer.idaho.gov>
Sent: Tuesday, July 23, 2019 3:23 PM
To: B2H DPOComments * ODOE
Cc: John Chatburn; Bobbi-Jo Meuleman; Sam J. Eaton
Subject: [Fortimail Spam Detected] B2H Public Comment
Attachments: State of Idaho B2H support for EFSC.docx

Ms. Tardaewether,

Please find attached a letter of support from Idaho Governor Brad Little for the Boardman to Hemmingway transmission line. Thank you.

Best,
George

George Lynch
Legal Counsel
Idaho Governor's Office of Energy and Mineral Resources
304 N. 8th Street | Suite 250 | Boise, ID 83720
office: 208-332-1679
mobile: 562-367-5981
e-mail: george.lynch@oer.idaho.gov



Governor Brad Little

*State Capitol :: Boise, Idaho 83720
(208) 334-2100 :: gov.idaho.gov*

July 22, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301
B2H.DPOComments@Oregon.gov

Dear Ms. Tardaewether,

Please accept this letter of support for the Boardman-to-Hemingway (B2H) transmission line project. The project provides access to a reliable and affordable supply of clean energy that is crucial to the long-term success and continued economic expansion of Idaho and the West.

My Office of Energy and Mineral Resources has worked closely with the State of Oregon, Bureau of Land Management, U.S. Forest Service, U.S. Navy, the Bonneville Power Administration, regional electric utilities and others throughout the B2H siting process.

B2H is critical for the ongoing transition to clean renewable energy in the Northwest. This transmission line will enhance grid resiliency in our region while allowing the region's utilities the ability to more fully participate in the emerging western energy markets.

Thank you for considering the benefits of B2H for Idaho, Oregon, and the entire West when you make your decision on awarding a site certificate for the project.

If we can provide any additional information, please contact John Chatburn, Administrator of my Office of Energy and Mineral Resources by calling 208-332-1660.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brad Little".

Brad Little
Governor of Idaho

ESTERSON Sarah * ODOE

From: P. Jackson <pnjocta@yahoo.com>
Sent: Wednesday, August 21, 2019 1:50 PM
To: B2H DPOComments * ODOE
Cc: P. Jacson; info@stopb2h.org; Gail Carbiener; Marlea Shurtleff; SA Brown; Rich Herman
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am a longtime member of the Oregon California Trails Association (OCTA). I am very supportive of the work that they have done to protect the Oregon Trail, especially here in Oregon. I want to note that I am commenting on my own behalf and not as a representative of OCTA.

I have traveled the length of the Oregon Trail and researched it. I am constantly inspired by the stories of the people and the obstacles they overcame to travel the trail. This is an important part of our history that helps to tell Oregonians who we are.

There are only a few places where you can get a real feeling of what the Oregon Trail was like when the pioneers traveled it. I am concerned that the B2H Transmission line will destroy that feeling in places where it impacts the Oregon Trail.

OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. I do NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew. I offer this additional condition. It is my understanding that OCTA would support this condition.

ADDITIONAL CONDITION #1 The Council should add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. I believe that it is important for the public to know where the Trails are. OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**

Pauline Jackson

PO Box 22184
Portland OR 97269

Email: pnjocta@yahoo.com

Cassie Jeffries
105 Walnut
La Grande, OR 97850

RECEIVED
AUG 21 2019
Department of Energy

PORTLAND OR 972
20 AUG 2019 PM 5 L



Energy Facilities Siting Council /
c/o Keller Tardewetter, Senior Siting Analyst
Oregon Dept. of Energy
550 Capital Street N.E.
Salem, OR 97301

97301-374299



August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

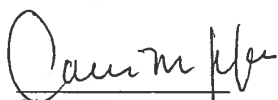
I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**



Signature

Printed name: Cassie M. Jeffries

Mailing address: 105 Walnut St.
La Grande, OR 97850

Email address: grayca@rou.edu
phone number: (optional) 509-942-4647



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Chris Jennings

Mailing Address (mandatory) 1707 Oak St
La Grande OR 97850

Phone Number (optional) () _____ Email Address (optional) _____

Today's Date: 6/20/19

Do you wish to make oral public testimony at this Hearing: Yes _____ No ✓

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Stop it. Not in support of building
line.

ESTERSON Sarah * ODOE

From: Aric Johnson <aricjohnson@gmail.com>
Sent: Wednesday, August 21, 2019 8:08 PM
To: B2H DPOComments * ODOE; info@stopb2h.org
Subject: B2H Comment Submission
Attachments: B2H EFSC comment-Scenic-AJJ.docx

Please accept my comments on the B2H transmission line siting proposal
--Aric--

August 20, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

I am writing to oppose granting a site certificate to Idaho Power for the Boardman to Hemingway Transmission Project on the grounds of unacceptable impact to the scenic resources in the Grande Ronde valley of Oregon.

I moved to be a part of this community in 1985. I have raised two boys in this beautiful place and now look forward spending time with my family and grandsons in a place that is familiar and safe. One of the primary reasons why I have chosen to stay here all these years is because of the natural setting of hills and mountains visible from any point in the valley. This outstanding scenery and the access provided by the national forests surrounding the valley keep people coming here and staying. I do not want to see its scenery degraded by a string of massive towers that will overpower the natural, rural beauty that make this valley a desirable place to live. Moving them “out of sight” of the valley does not correct this intrusion. The beautiful Morgan Lake and upper Glass Hill areas will be forever blighted by intrusive towers that no one in Idaho will have to endure to receive power from sources hundreds of miles away. Transferring energy in wires over long distances is a technology of the past and shouldn't be used in this setting.

Specifically, OAR 345-022-0080, in describing Scenic Resources, states “the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans....”

The “not likely” probability of adverse impact is indefensible. Huge towers with swinging high tension wires will most certainly affect the viewshed in and around the Grande Ronde valley. How could construction of a system of towers of this scale not permanently impair the viewshed and scenic corridors of our beautiful valley?

Union County Land Use Plan (1979) in the Plan Policies > Resources section, page 33, outlines goals for resources:

V. Resources

A. State Planning Goal: To conserve open space and protect natural, cultural, historical and scenic resources.

B2. That the following concerns will be taken into account in protecting area visual attractiveness:

- a. Maintaining vegetative cover wherever practical.
- b. Using vegetation or other site obscuring methods of screening unsightly uses.
- c. Minimizing number and size of signs.
- d. ***Siting developments to be compatible with surrounding area uses, and to recognize the natural characteristics of the location.***

B6. That development will maintain or enhance attractiveness of the area and not degrade resources.

Idaho Power's request to string huge towers along the visible edge of the Grande Ronde Valley violates sections V.A, V.B.2 and V.B.6 of our County's Land Use Plan.

Considering the points above, Idaho Power cannot comply with the state standards. Therefore **EFSC Must Deny the Site Certificate!**

Sincerely,

Aric J. Johnson

Aric J. Johnson
62116 Igo Lane
La Grande, Or 97850
aricjohnson@gmail.com

ESTERSON Sarah * ODOE

From: Bruce Johnson <rowljohn@gmail.com>
Sent: Thursday, August 22, 2019 11:57 AM
To: B2H DPOComments * ODOE
Subject: concerns about certificate approval for B2H

22 August 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

As a wildlife biologist who has studied effects of human disturbance and infrastructure on wildlife for many years, I am very concerned about the proposed Boardman to Hemingway Transmission Project in terms of its potential impacts on wildlife habitat. The key impacts of the proposed project include the erection of 1,200 tall (up to 200 ft) towers and the creation of a massive corridor of disturbed land (305 miles x 250 ft). A large and increasing body of research demonstrates the use of such towers as perches and nest sites for a suite of common avian predators (e.g., crows, ravens), thus increasing predation rates on sensitive species such as greater sage-grouse and other ground-nesting birds. Effects of such synanthropic species are becoming more common as humans alter natural landscapes with structures such as these towers. Moreover, the creation of a permanent, altered corridor along the 300+ miles of the transmission line will create highly suitable habitat for invasive plant species, such as cheatgrass (*Bromus tectorum*) or the increasingly problematic North Africa grass (*Ventenata dubia*). This habitat degradation will affect a host of wildlife species, from small mammals relying on seeds of native bunchgrasses for food to birds that will no longer find suitable nesting habitat in a mowed strip of land.

Per regulations regarding the issuing of a certificate to Idaho Power, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are consistent with:

- (1) The general fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025(1) through (6) in effect as of February 24, 2017, and
- (2) For energy facilities that impact sage-grouse habitat, the sage-grouse specific habitat mitigation requirements of the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-415-0025(7) and OAR 635-140-0000 through -0025 in effect as of February 24, 2017. (**Statutory/Other Authority:** ORS 469.470 & 469.501, **Statutes/Other Implemented:** ORS 469.501).

This project is not consistent with the basic goals and standards described above due to its potential impacts on wildlife habitat throughout the corridor. In conclusion, the evidence is clear, from the multitude of

resource concerns – not just about wildlife habitat - that have been raised by many concerned citizens, that the Energy Facilities Siting Council should not approve the certificate to approve this project.

Sincerely,

/s/ Mary Rowland

401 Aquarius Way
La Grande, Oregon 97850
rowljohn@gmail.com

TARDAEWETHER Kellen * ODOE

From: Kathy J <katrinajeana@gmail.com>
Sent: Saturday, June 8, 2019 9:03 AM
To: B2H DPOComments * ODOE
Subject: B2H

Please, NO, don't allow this transmission line to be built!
Concerned citizen Kathy Johnson



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Frank Jordan

Mailing Address (mandatory) P.O. Box 89
Harper OR 97906

Phone Number (optional) 503 358 2283 Email Address (optional) _____

Today's Date: 6-18-19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Page 38	<p>1 because you don't get to respond to the decisions of the 2 Council directly. And the Department of Energy has made 3 it increasingly difficult for the public to access the 4 Energy Facility Siting Council members. 5 So you add to that the fact that there's no 6 reasonable time to review these proposed orders, and 7 you're talking about 600 pages in the draft proposed 8 order. These issues, and it's not the complete list, 9 came from 25 pages. I guess it was actually 24 pages of 10 that draft proposed order. So go figure. 11 Do I have any more time left? 12 HEARING OFFICER WEBSTER: You have 23 seconds. 13 MS. IRENE GILBERT: I was going to add a bunch 14 of other things. The developer has ignored things like 15 protected lands. There are three federal mitigation 16 sites at Ladd Marsh; they choose not to even mention 17 them. They ignore federal threatened and endangered 18 species protections. They will not provide any 19 protection of them. They don't honor the tribes and the 20 treaty agreements. 21 You've approved things as far as where the 22 views amount to someone floating on Wild and Scenic 23 River and looking up to energy development that's a mile 24 away, and seeing a bunch of turbines while you're on the 25 Wild and Scenic River.</p>	Page 40	<p>1 District. The Joint Committee manages the Owyhee Dam on 2 the Owyhee River along with two hydroelectric power 3 plants. One of the power plants is located at the base 4 of the Owyhee Dam and the other plant is located at the 5 head of the irrigation tunnel near the Owyhee Dam. 6 The Joint Committee operates and maintains a 7 69-kV transmission line which transmits power from the 8 Owyhee hydroelectric facilities to Idaho Power's power 9 grid system. The hydroelectric power plants were 10 partially funded by loans through the Department of 11 Energy. The 69-kV transmission line will be crossed by 12 the proposed 500-kV line somewhere to the east of 13 proposed milepost 256. 14 The Joint Committee requests additional 15 language be added to the draft proposed order to require 16 Department of Energy staff and irrigation districts' 17 staff be consulted on tower and line placements near the 18 intersections of the power lines and canals, tunnels, 19 and access roads. 20 The Joint Committee members share the same 21 concerns expressed tonight, that you've heard tonight on 22 the proposed placement on EFU lands. 23 Thank you. 24 HEARING OFFICER WEBSTER: Thank you. 25 Following Mr. Jordan we will have Jim Foss.</p>
Page 39	<p>1 As far as the placement of these, in Union 2 County, we have 80 percent on private land, we have 3 55 percent, federal land. So I could go on. I will go 4 on but not in this format. 5 So thank you for the time. You will get all 6 of the statutory references. 7 HEARING OFFICER WEBSTER: Thank you, 8 Ms. Gilbert. 9 MS. IRENE GILBERT: Thank you. 10 HEARING OFFICER WEBSTER: Before we hear from 11 Mr. Horton, the next one is Frank Jordan. 12 SECRETARY CORNETT: For the record, Council 13 Member Betty Roppe joined, so we do have a quorum at 14 this point in time. 15 HEARING OFFICER WEBSTER: Thank you. 16 Mr. Horton, if you want to start with your 17 name and address. 18 MR. MICHAEL HORTON: I'm Michael W. Horton. 19 My address is 106 Main Street, P.O. Box 1565, Nyssa, 20 Oregon 97913. I want to welcome Council to eastern 21 Oregon. 22 I'm secretary of the Joint Committee of the 23 Owyhee Project. The Joint Committee consists of 24 representatives from Owyhee Irrigation District, 25 Ridgeview Irrigation District, and Gem Irrigation</p>	Page 41	<p>1 Mr. Jordan, if you'd state your name and 2 address, please. 3 MR. FRANK JORDAN: My name is Frank Jordan. I 4 live at 3370 Old Stage Road in Westfall. 5 I own property west of Vale that the power 6 line will be crossing. And my main concern is the power 7 line is basically using our driveways as their access 8 roads. We have a home within one-eighth of a mile of 9 the power line. We have fields that it's crossing. An 10 irrigation pond within feet of where they propose to 11 cross. 12 And I have not been contacted at all by Idaho 13 Power to come out and look at where they are putting the 14 line. No one from Idaho Power has come out. No one 15 from Oregon Department of Energy has been on my property 16 to look where the line is going. I find this kind of 17 disturbing that Idaho Power or the Oregon Department of 18 Energy would basically put a line somewhere without 19 actually going out and talking to the landowners and 20 seeing exactly where the line is proposed. That's my 21 only comment. 22 Thank you. 23 HEARING OFFICER WEBSTER: Thank you. 24 After we hear from Mr. Foss, will be followed 25 by Arnold Tropf.</p>

August 14, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

I appreciate the opportunity to comment on the B2H Draft Proposed Order. The Oregon National Historic Trail will be significantly affected by the B2H Transmission Line.

The Draft Proposed Order identifies significant impacts to the Oregon Trail in several Exhibits, including Exhibit C: Property Location and Maps; Exhibit L: Protected Areas; Exhibit R: Scenic Aesthetic Values; Exhibit S: Cultural Resources; Exhibit T: Recreational Facilities; and Exhibit X: Noise.

B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, **except at the Oregon Trail Interpretive Center at Flagstaff Hill.**

The B2H Transmission Line should be buried for approximately 2 to 2 ½ miles to comply with the exhibits indicated above. Idaho Power has from the early years refused to do any significant analysis for this option. IPC uses cost as the reason for stating that undergrounding is not feasible. Cost is not a specific standard, and costs are the responsibility of the Oregon Public Utilities Commission during rate considerations. EFSC has determined that IPC has the Financial ability even if some partners choose to not participate, so reasonable cost should not be a determining factor for EFSC.

EFSC should refuse to approve the Draft Project Order for the following reasons:

1. Does not comply with Noise Standards as no measurements were done at the Oregon Trail viewpoint or walking trails endpoint near milepost 146. Perhaps not a "Noise Sensitive Property," in the context of residential sleeping areas; however, certainly for tourists and visitors to the Interpretive Center and hiking trails noise will be disturbing. Map 23 in Attachment X-1 does not even show the Oregon Trail.
2. Within OAR 345-022-0040 Protected Areas and ODEQ standards 340-035-0000-0100, this area should have been monitored and modeled as a Noise Sensitive Property and was not.
3. Does not comply with Scenic Values from the Blue Mountains Parkway and Oregon Trail Interpretive Center. The OR 86 encourages drivers to STOP and read interpretive signs, so viewer perception and resource change cause significant decrease of scenic vales. IPC says no significant impact.
4. The DPO does not comply with Exhibit L Protected Areas. The BLM ACEC at Flagstaff Hill has not considered undergrounding for the protection of the Oregon Trail. No analysis found the pristine, Class 1 swales of the Oregon Trail within the ACEC located at: Lat 44.813762 Long -117.750194 or 44° 48' 48.26"N 117° 75' 57.97"W. IPC proposes to build a new constructed road over the Oregon Trail in the area identified in the location above.
5. The DPO does not meet the standards required for Exhibit T Recreational Facilities, OAR 345-022-0100, especially at the Flagstaff Hill interpretive center, because of:
 - a. It is a BLM ACEC area managed for public tourism

- b. It is the single most visited tourist facility in Baker County
 - c. The quality of the facility is outstanding
 - d. There is no other place where the Oregon Trail can be seen and interpreted.
6. The cost estimates of IPC do not compare with those of the *Edison Electric Institute*, January 2013 publication "Out of Sight, Out of Mind, An Updated Study of the Undergrounding of Power Lines." This article suggests that for 2.5 miles of rural undergrounding, the cost will be \$67,500,000. This is almost half the IPC estimate.

The Oregon Trail along the route of the B2H has the most damaging affects to its critical historic elements. Once the Trail is gone it cannot be reconstructed or mitigated back to life. Once gone, always gone. The only easily accessible public facility in Oregon is the Flagstaff Hill Interpretive Center near Baker City. The B2H must be buried to preserve this important site.

Considering the reasons above and the unconscionable desecration of our national treasure, the Council Must Deny the site certificate for the Boardman to Hemingway Transmission project.

Thank you,


Signature

Printed Name: Letha K. Joseph

Mailing Address: PO Box 701
Union, ORE 97883

Email: lethak@mail.com

My family has lived in Grande Ronde Valley since 1938. There are countless reasons we do NOT want this ugly useless power line through this valley!

L.J.

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

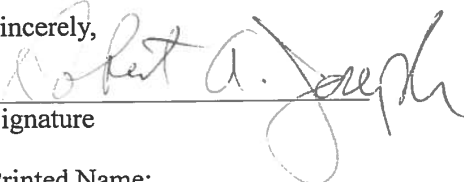
Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name:
Mailing Address:

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.


Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,


Name: Robert A. Joseph

Address:

La Grande, OR. 97850

P.O. Box 701
Union, Ore.
97883

I don't think we need this project to mar the beauty of this area.
We don't need any more windmills in this area. The ones we have, ship them power to Celj, and our electric bills keep going up.

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

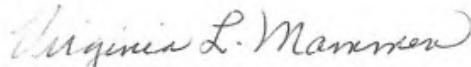
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

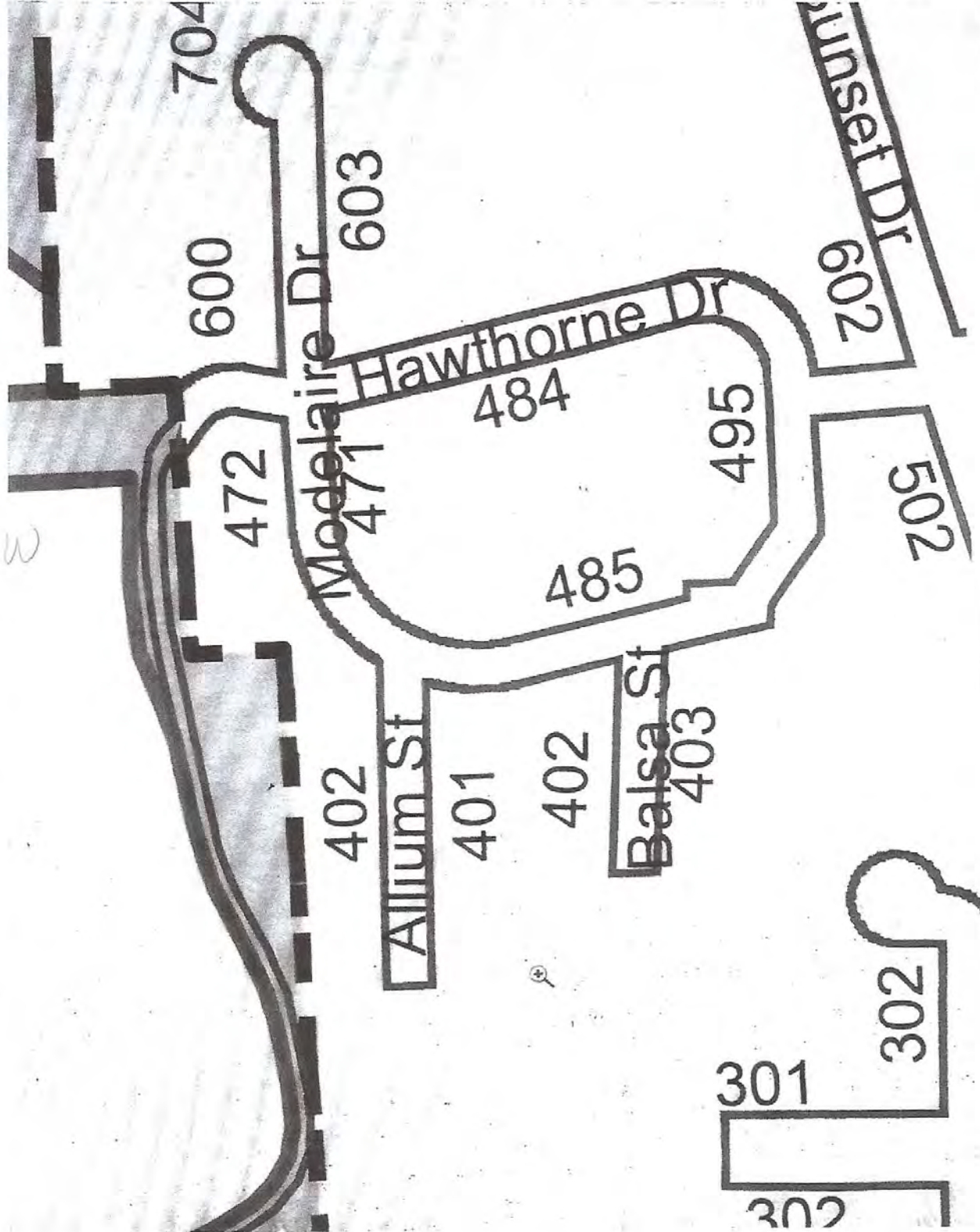


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

7/25/2019

Gmail - Modelaire Roadway Specifications

Exhibit 6



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



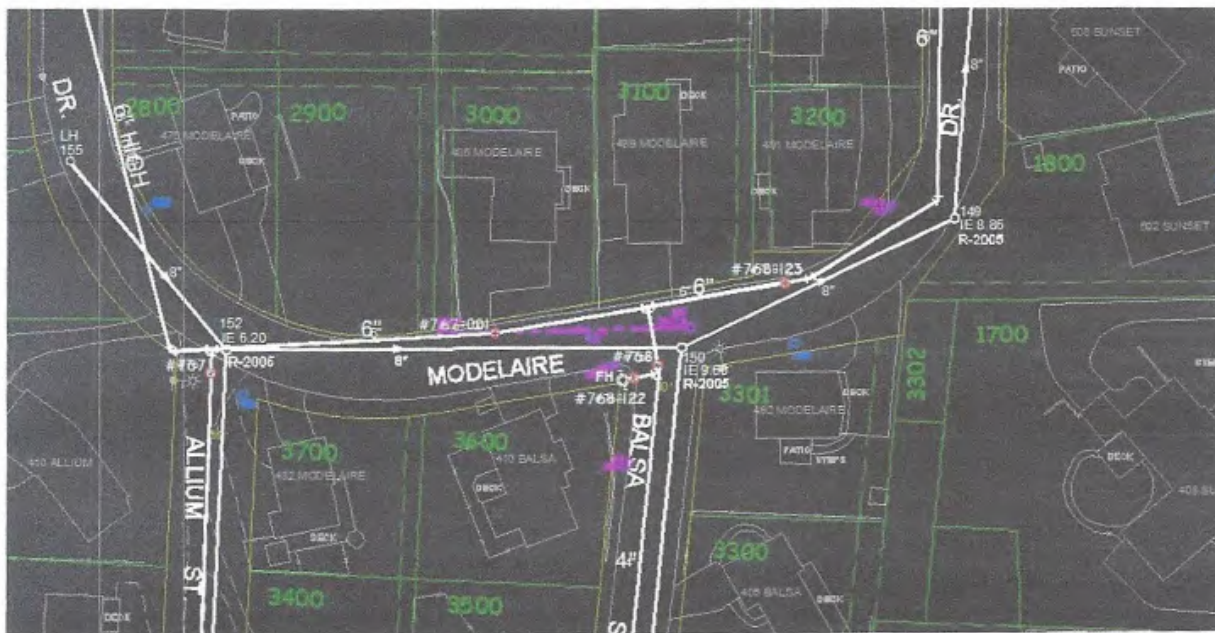
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

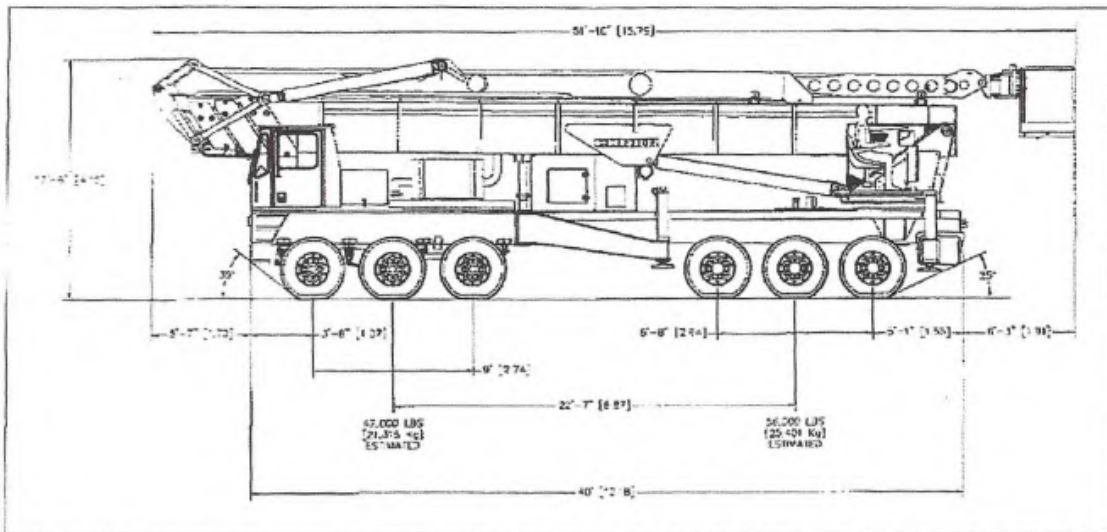


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
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ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

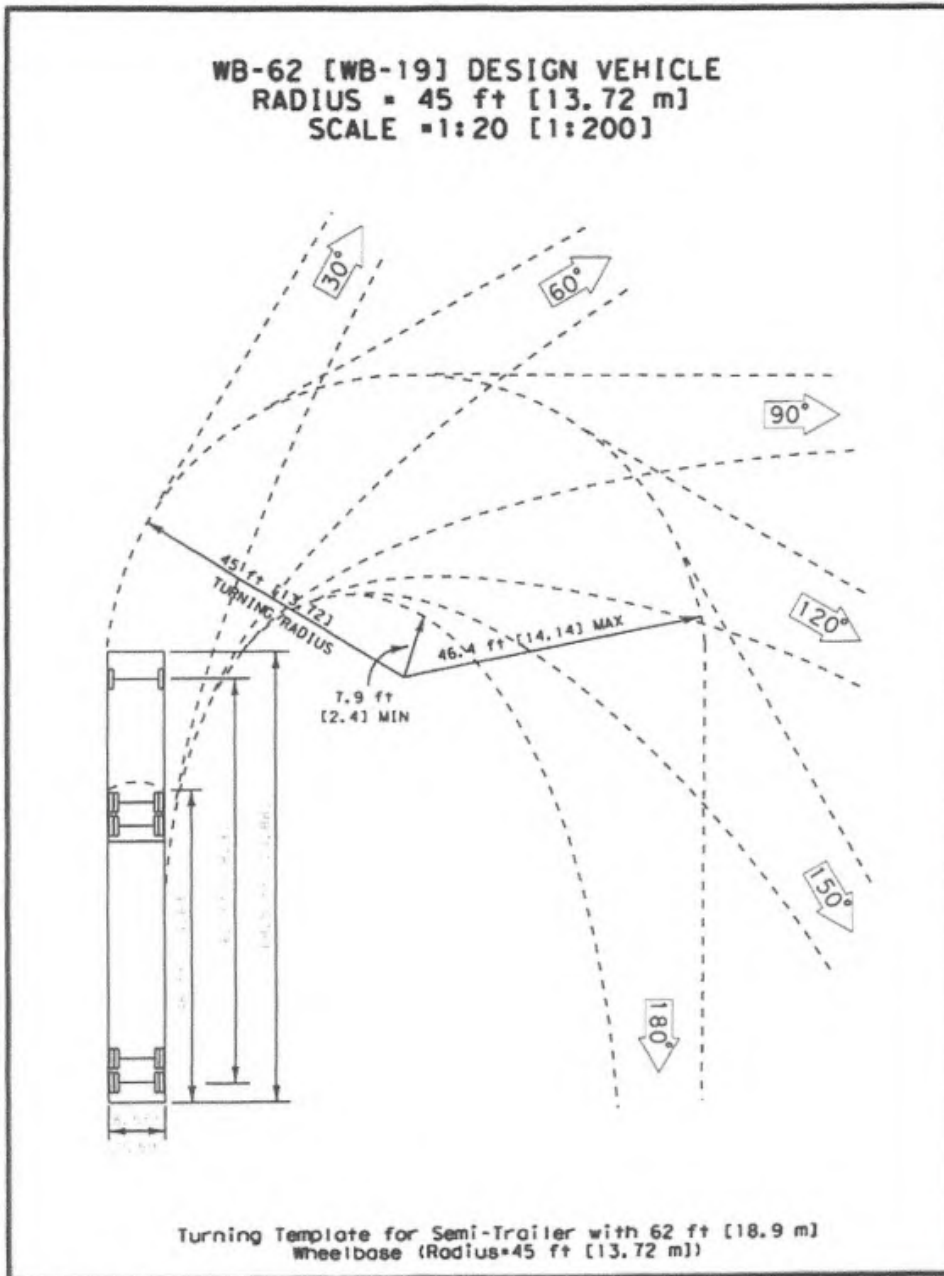
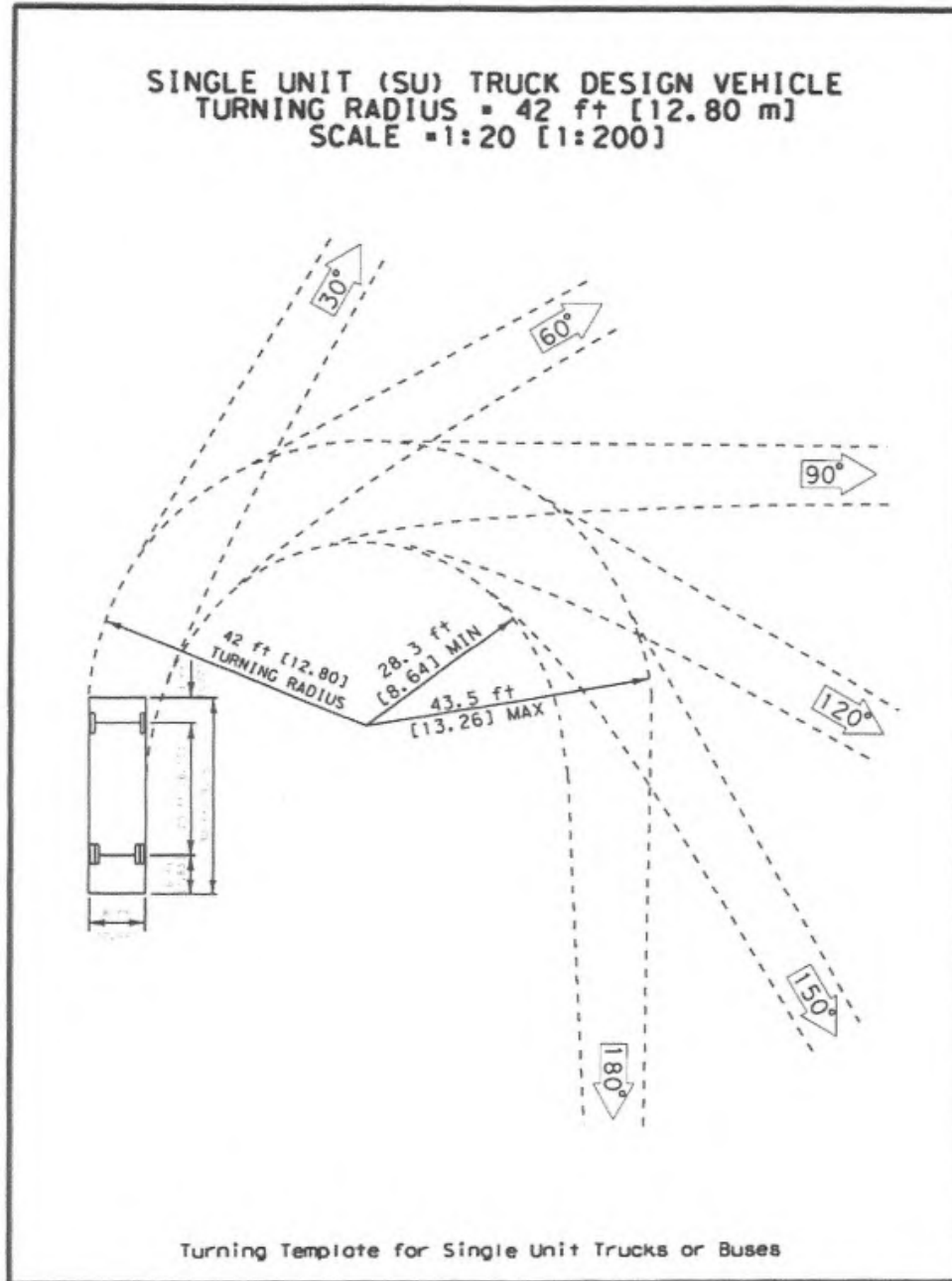


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14



**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

Exhibit 15

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

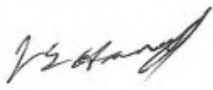
Section 17. TRUCK ROUTES

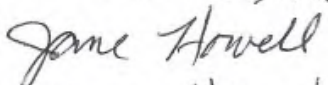
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

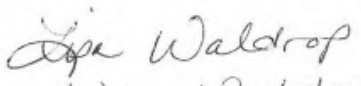
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

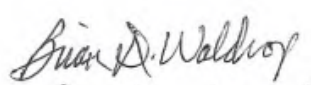
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

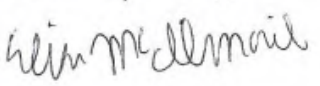
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SIGNATURE 
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ADDRESS 482 Modelaire Dr
EMAIL j.howell2@frontier.com

SIGNATURE 
PRINTED NAME Jane Howell
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SIGNATURE 
PRINTED NAME Lisa Waldrop
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EMAIL ldjw62@gmail.com

SIGNATURE 
PRINTED NAME BRIAN D. WALDROP
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EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRE DR.
EMAIL mcilmail154@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

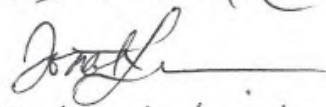

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Marie Skinner
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marieskinner@hotmail.com

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PRINTED NAME

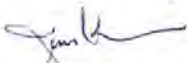
ADDRESS


EMAIL

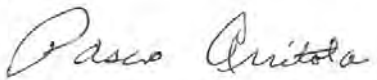
Blake Bars
Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

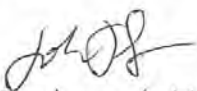
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SIGNATURE 
PRINTED NAME D. Dale Mammen
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SIGNATURE 
PRINTED NAME Jim Kreider
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La Grande, OR 97850
EMAIL jkreider@campblackdog.org

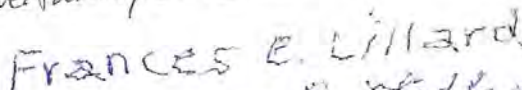
SIGNATURE 
PRINTED NAME Judie Arritola
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SIGNATURE 
PRINTED NAME Pasco Arritola
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SIGNATURE 
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EMAIL

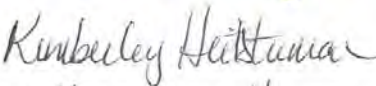
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SIGNATURE 
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SIGNATURE 
PRINTED NAME Frances E. Lillard
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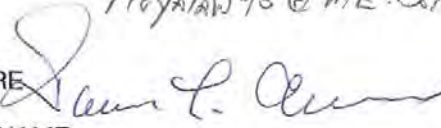
SIGNATURE 
PRINTED NAME Brent H. Smith
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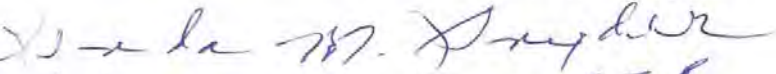
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

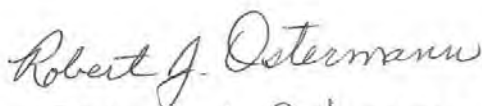
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
ADDRESS 2409 CENTURY LP, LA GRANDE, OR 97850
EMAIL kimheitstuman@hotmail.com


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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
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SIGNATURE 
PRINTED NAME Lonnie L. Allen
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EMAIL N/A

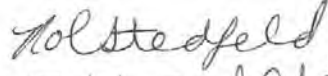
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 MODELAIRE
EMAIL

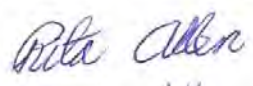
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

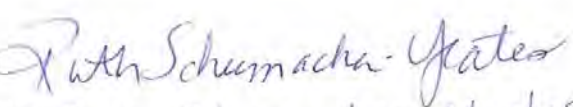
SIGNATURE 
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ADDRESS 495 Modelaire Dr La Grande, OR 97850
EMAIL

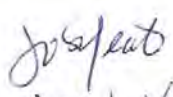
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SIGNATURE 
PRINTED NAME Jonathan D. White
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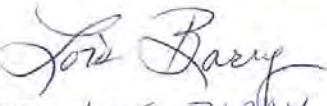
SIGNATURE 
PRINTED NAME Robin Stedfeld
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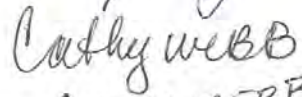
SIGNATURE 
PRINTED NAME Rita Allen
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EMAIL

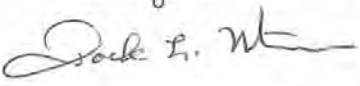
SIGNATURE 
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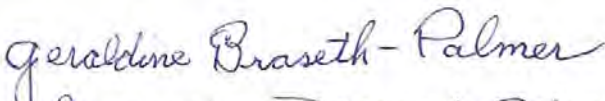

SIGNATURE 
PRINTED NAME JOHN YEATES
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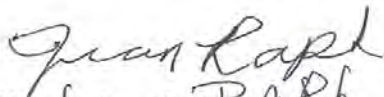
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SIGNATURE 
PRINTED NAME Lois BARRY
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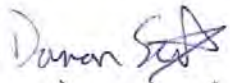
SIGNATURE 
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SIGNATURE 
PRINTED NAME Jack L. Martin
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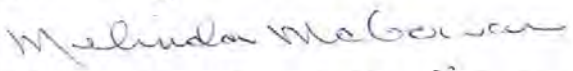
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SIGNATURE 
PRINTED NAME Jean BAPH
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SIGNATURE 
PRINTED NAME Laura Elly Hudson
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EMAIL ellyhudson@gmail.com

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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
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SIGNATURE *Lynn Wheeler Duncan*
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SIGNATURE *Angela Sherer*
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EMAIL asherer@frontier.com

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SIGNATURE *Robert J. Sherer*
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SIGNATURE *Heather M. Null*
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
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SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
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SIGNATURE *Caroline Kaye Juniper*
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EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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PRINTED NAME
ADDRESS
EMAIL

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PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.


In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

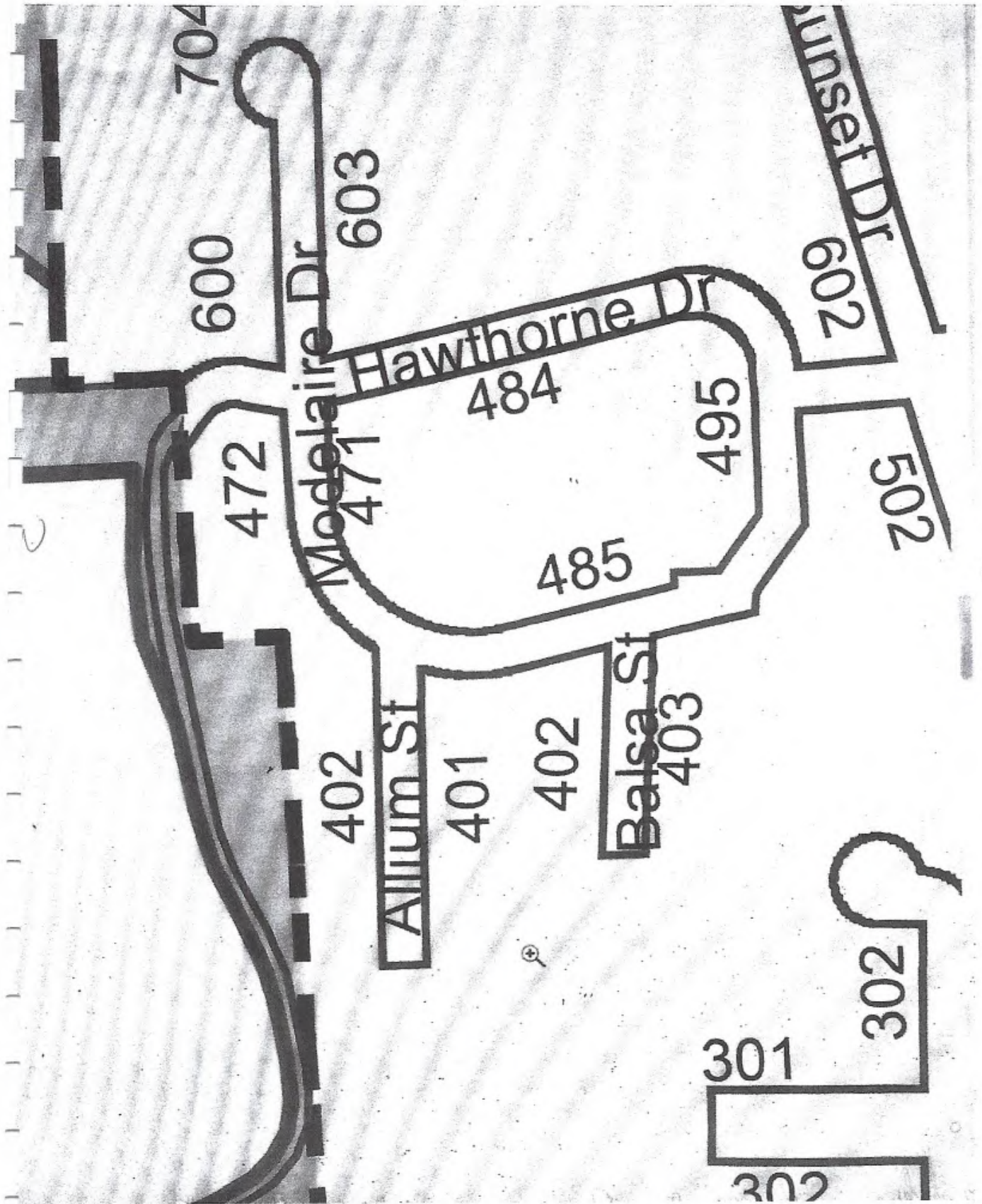


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



2

11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



8/5/2019

Oregon Secretary of State Administrative Rules

Exhibit 4a

[Home](#) [Business](#) [Voting](#) [Elections](#) [State Archives](#) [Audits](#)

Department of Environmental Quality

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

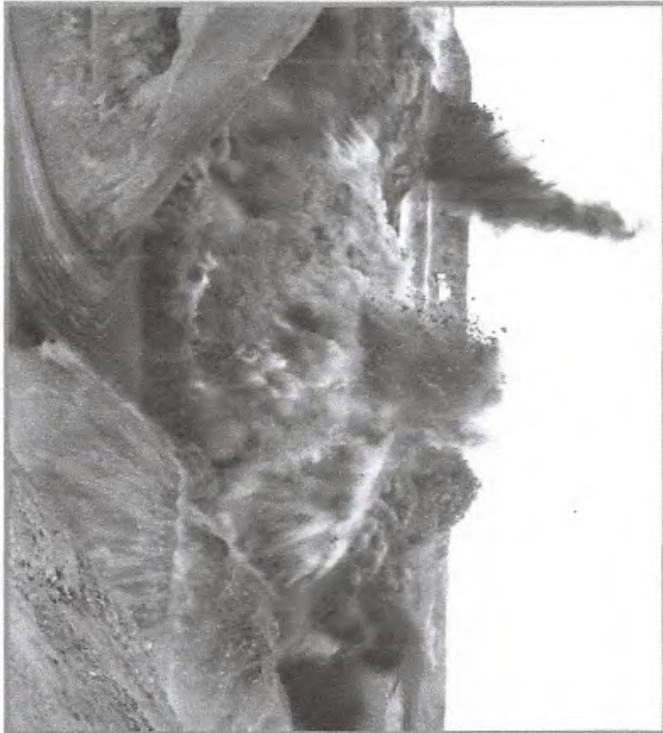
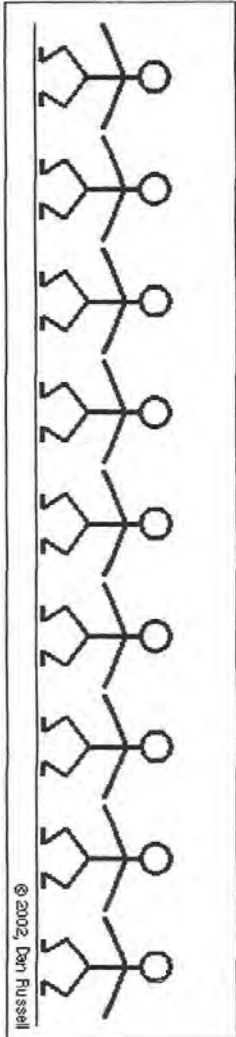


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

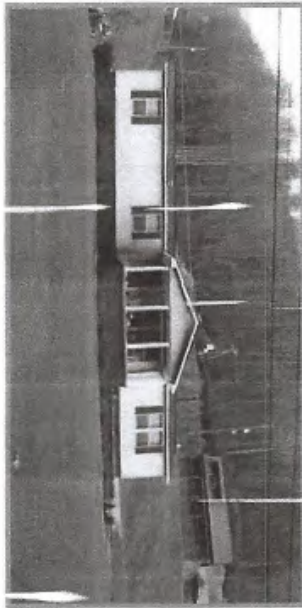
Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

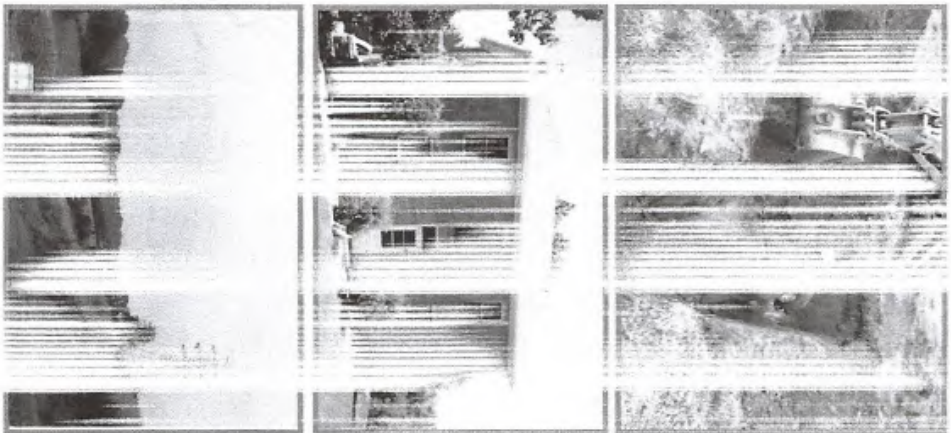
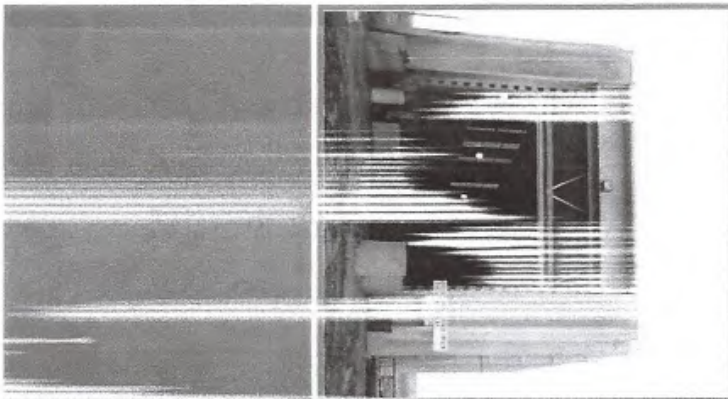
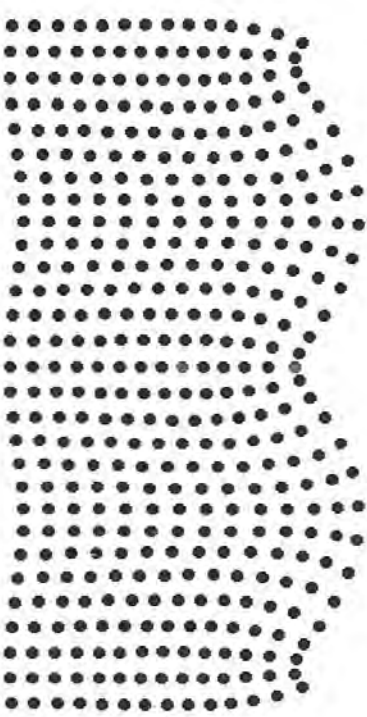


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

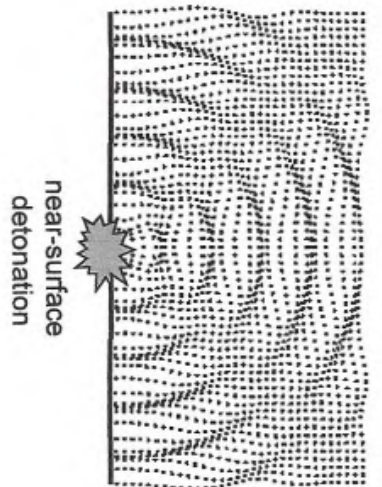
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

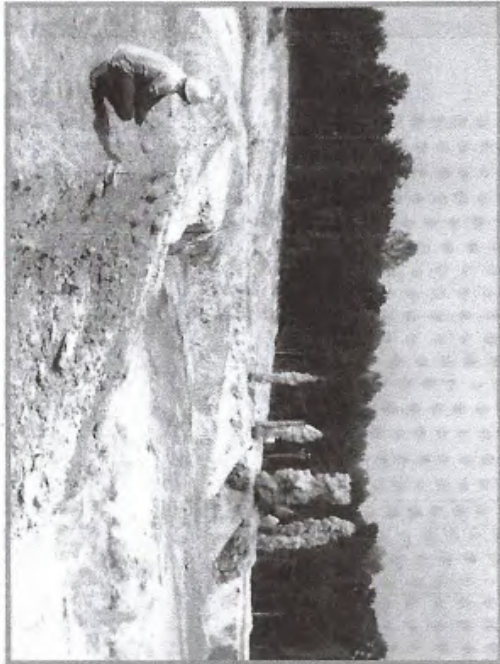
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

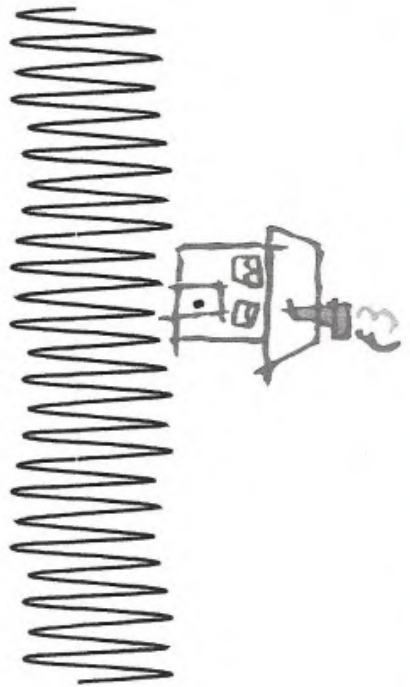
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

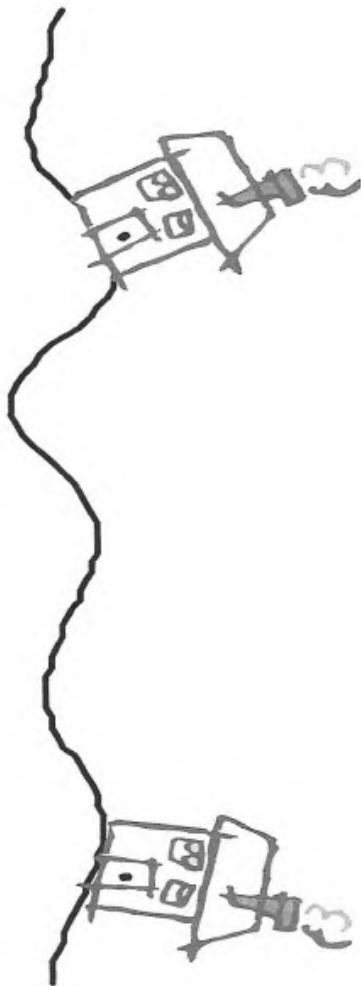


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

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A noisy problem - Harvard Health

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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



(<https://medcenterblog.uvmhealth.org/>)

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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB – nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



Front Psychol. 2013; 4: 578.

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10/12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/21

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)

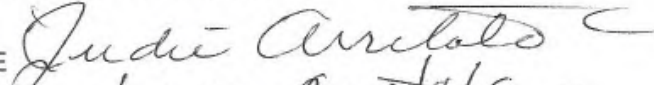



SCIENCE
NEWS


EXPERT
OPINION

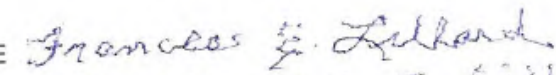
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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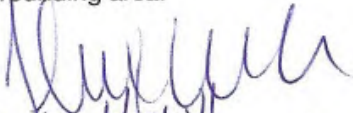
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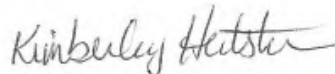
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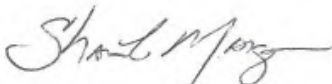
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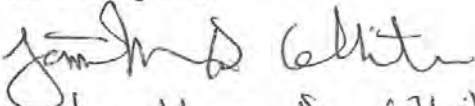
ADDRESS

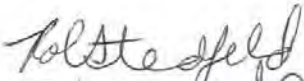
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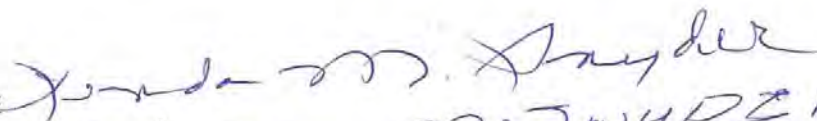
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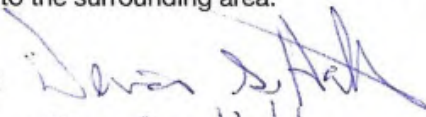
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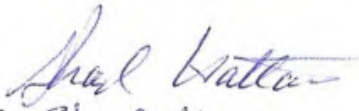
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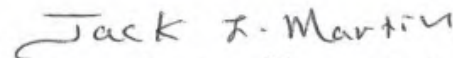
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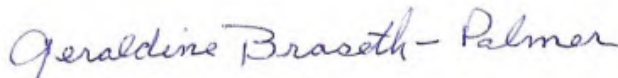
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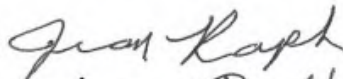
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TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

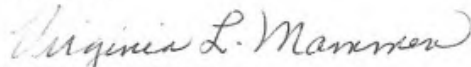
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

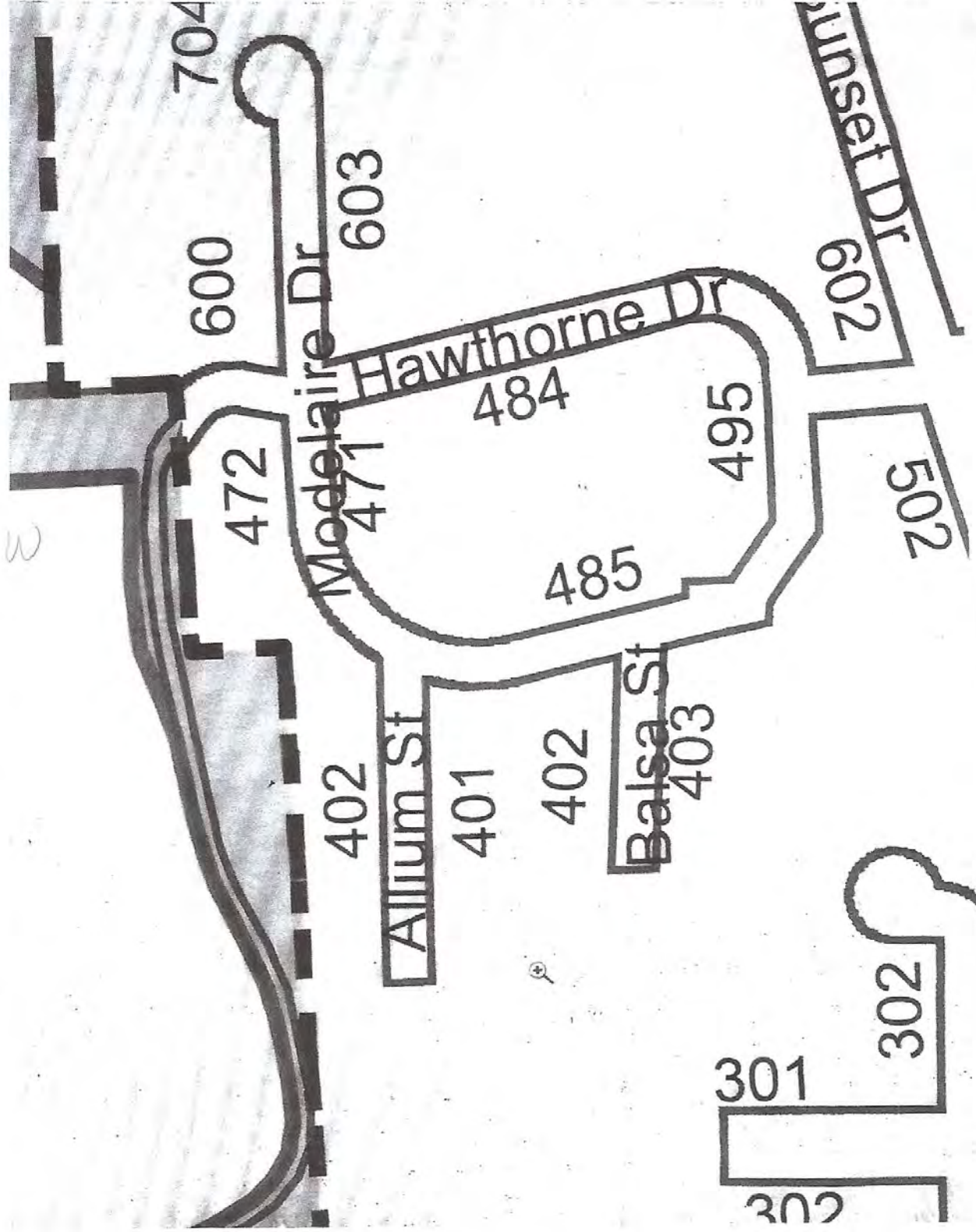


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

7/25/2019

Gmail - Modelaire Roadway Specifications

Exhibit 6



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



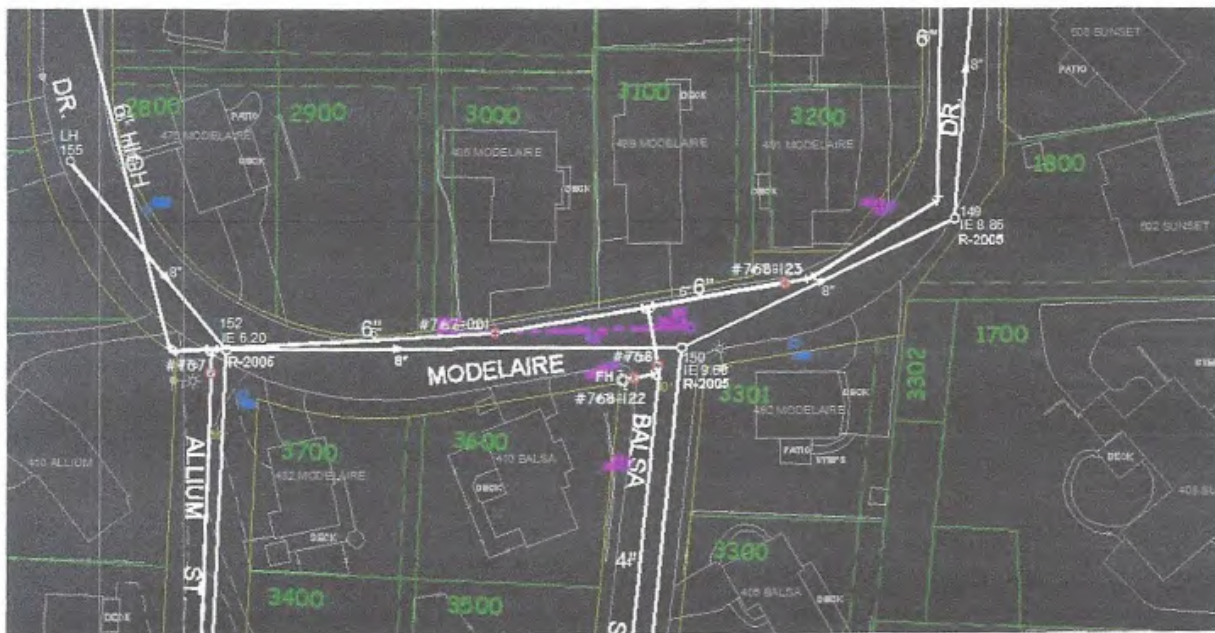
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

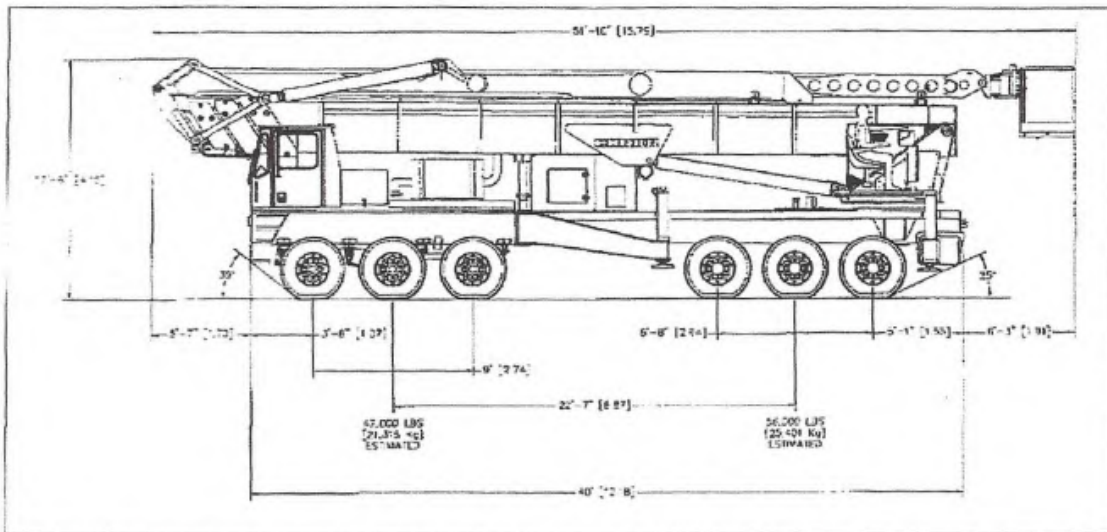


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

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ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

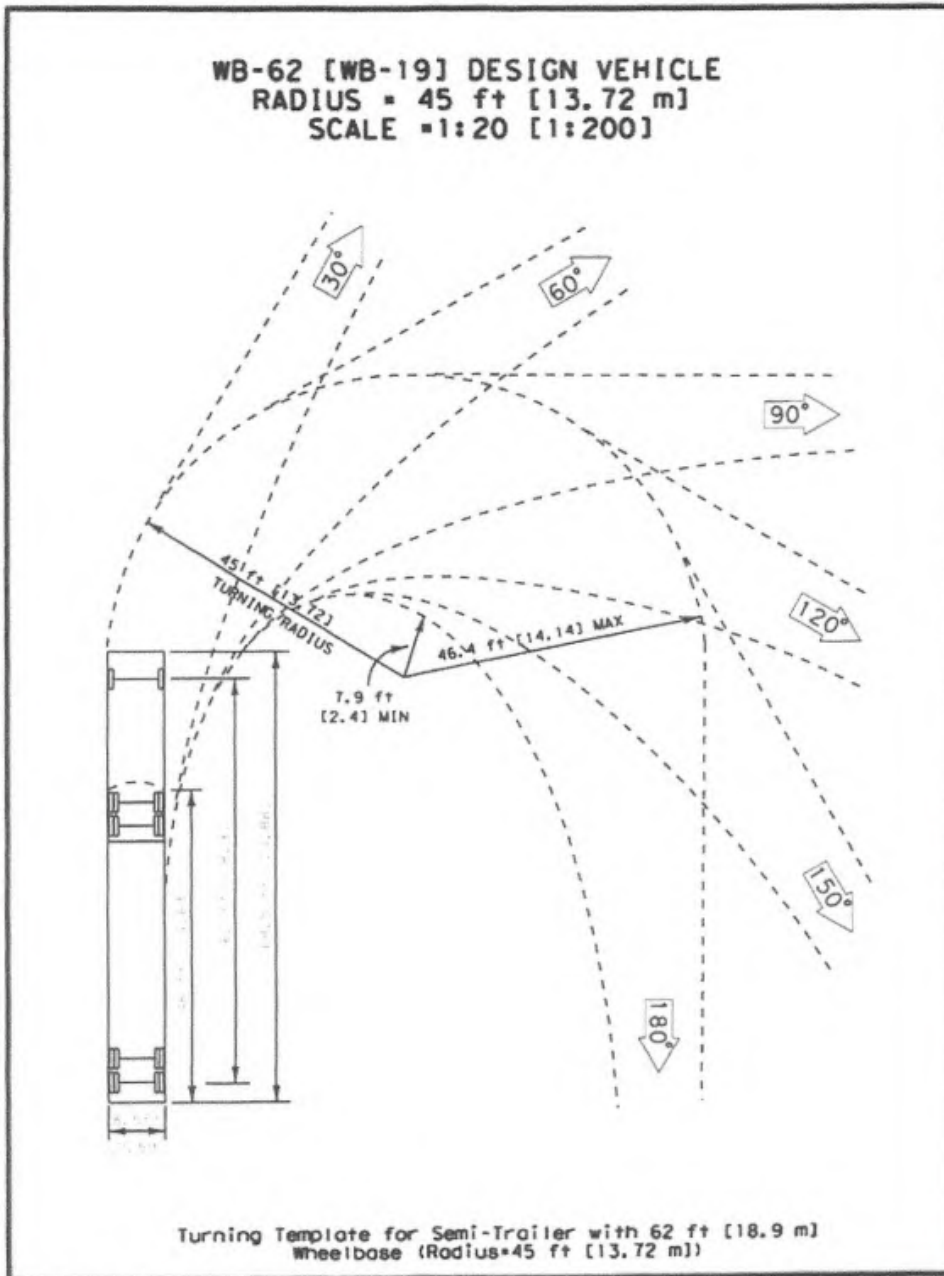


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

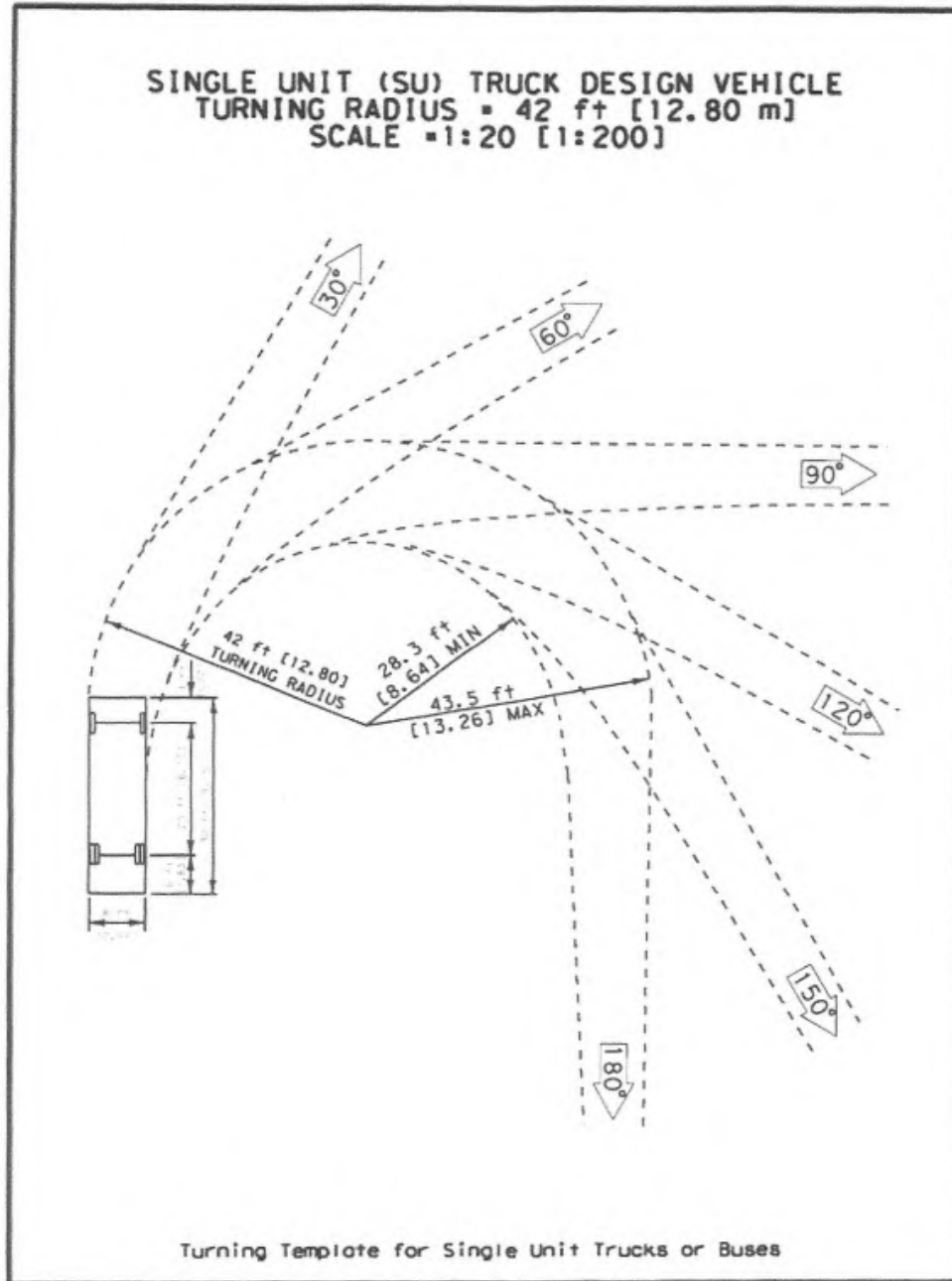


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

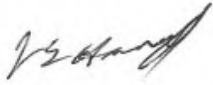
Section 17. TRUCK ROUTES

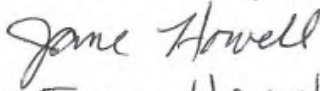
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

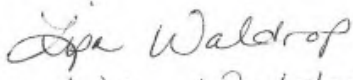
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

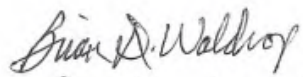
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

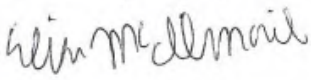
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME James E. Howell II
ADDRESS 482 Modelaire Dr
EMAIL j.howell2@frontier.com

SIGNATURE 
PRINTED NAME Jane Howell
ADDRESS 482 Modelaire DR
EMAIL d.janehowell@gmail.com

SIGNATURE 
PRINTED NAME Lisa Waldrop
ADDRESS 475 Modelaire Dr.
EMAIL ldjw62@gmail.com

SIGNATURE 
PRINTED NAME BRIAN D. WALDROP
ADDRESS 475 MODELAIRES DR.
EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRES DR.
EMAIL mcilmail154@hotmail.com


I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
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jessiehuxell@live.com

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

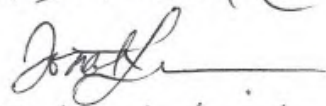

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Jonah Lindeman
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Marie Skinner
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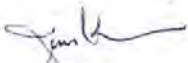
ADDRESS

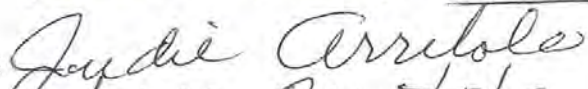
EMAIL

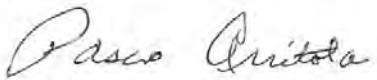
Blake Bars
Blake Bars
1101 G Ave La Grande
blakebars@gmail.com


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SIGNATURE 
PRINTED NAME D. Dale Mammen
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SIGNATURE 
PRINTED NAME Jim Kreider
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La Grande, OR 97850
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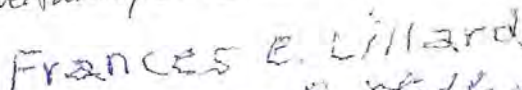
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SIGNATURE 
PRINTED NAME Pasco Arritola
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EMAIL Pstola@charter.net


SIGNATURE 
PRINTED NAME John Bazuta
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EMAIL

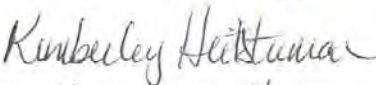
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SIGNATURE 
PRINTED NAME Andrea Galzow
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SIGNATURE 
PRINTED NAME Frances E. Lillard
ADDRESS 477 Madelaine Dr. L.G.
EMAIL

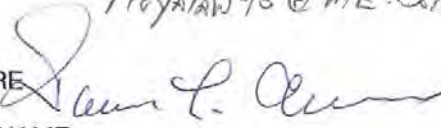
SIGNATURE 
PRINTED NAME Brent H. Smith
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EMAIL smithbrent@gmail.com

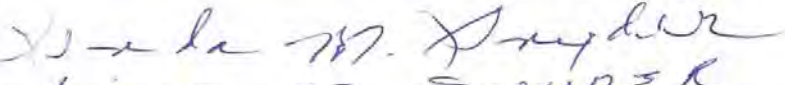
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

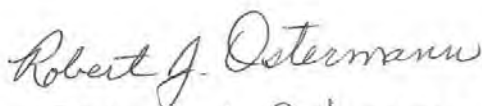
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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EMAIL kimheitstuman@hotmail.com

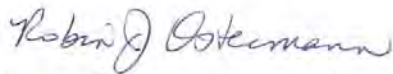
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SIGNATURE: 
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SIGNATURE 
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ADDRESS Dennis L. ALLEN #41- 9637720
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EMAIL N/A

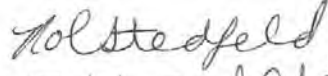
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire
EMAIL

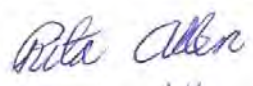
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
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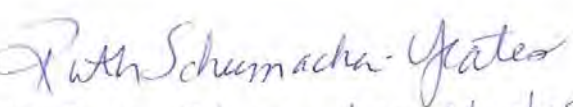
SIGNATURE 
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

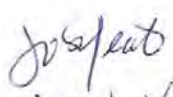
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SIGNATURE 
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SIGNATURE 
PRINTED NAME Robin Stedfeld
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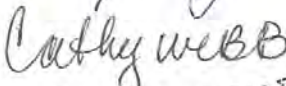
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

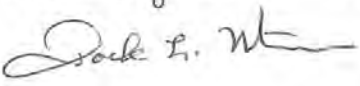
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
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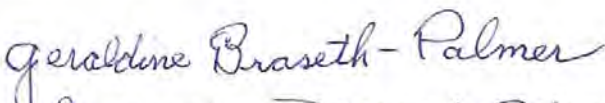

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
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SIGNATURE 
PRINTED NAME Lois BARRY
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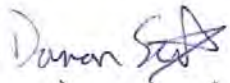
SIGNATURE 
PRINTED NAME CATHY WEBB
ADDRESS 1708 Cedar St. LAGRANDE, OR 97850
EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gilcrest Dr. LaGrande
EMAIL Buff Martin 27 @GMail .com

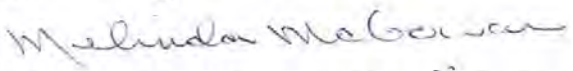
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
ADDRESS 1602 Goldenest Drive LA GRANDE, Ore 97850
EMAIL 


SIGNATURE 
PRINTED NAME Jean BAPH
ADDRESS 1509 MADISON AVE LaGrande, OR 97850
EMAIL Jbaph19@gmail.com


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SIGNATURE 
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PRINTED NAME Laura Elly Hudson
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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
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EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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SIGNATURE *Anne G. Cavinato*
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SIGNATURE *Joe Horst*
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EMAIL asherer@frontier.com

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SIGNATURE *Robert J. Sherer*
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SIGNATURE *Heather M. Null*
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SIGNATURE *Bert R. Freewing*
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PRINTED NAME Lindsay McCullough
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EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
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SIGNATURE *Robin L. Maille*
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SIGNATURE *Bruce C Kevan*
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SIGNATURE *Carol S. Summers*
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SIGNATURE *Caroline Kaye Juniper*
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EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

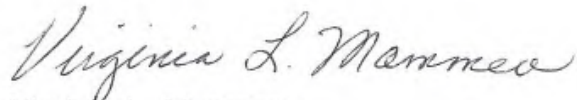
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰
These children also live in the neighborhoods to be affected by the noise
so they would be impacted coming and going to school, at home and also
while at school. To impose the constant possibility of loud noises is cruel,
disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so
close to homes, schools, and medical facilities impacting hundreds of
peoples' daily lives, the day to day agitation, wondering what is coming
next, fear and being on constant alert are not just addressed by some type
of mitigation but must be addressed by a route that is much less impactful
to peoples' safety, sanity, and health.

Sincerely,

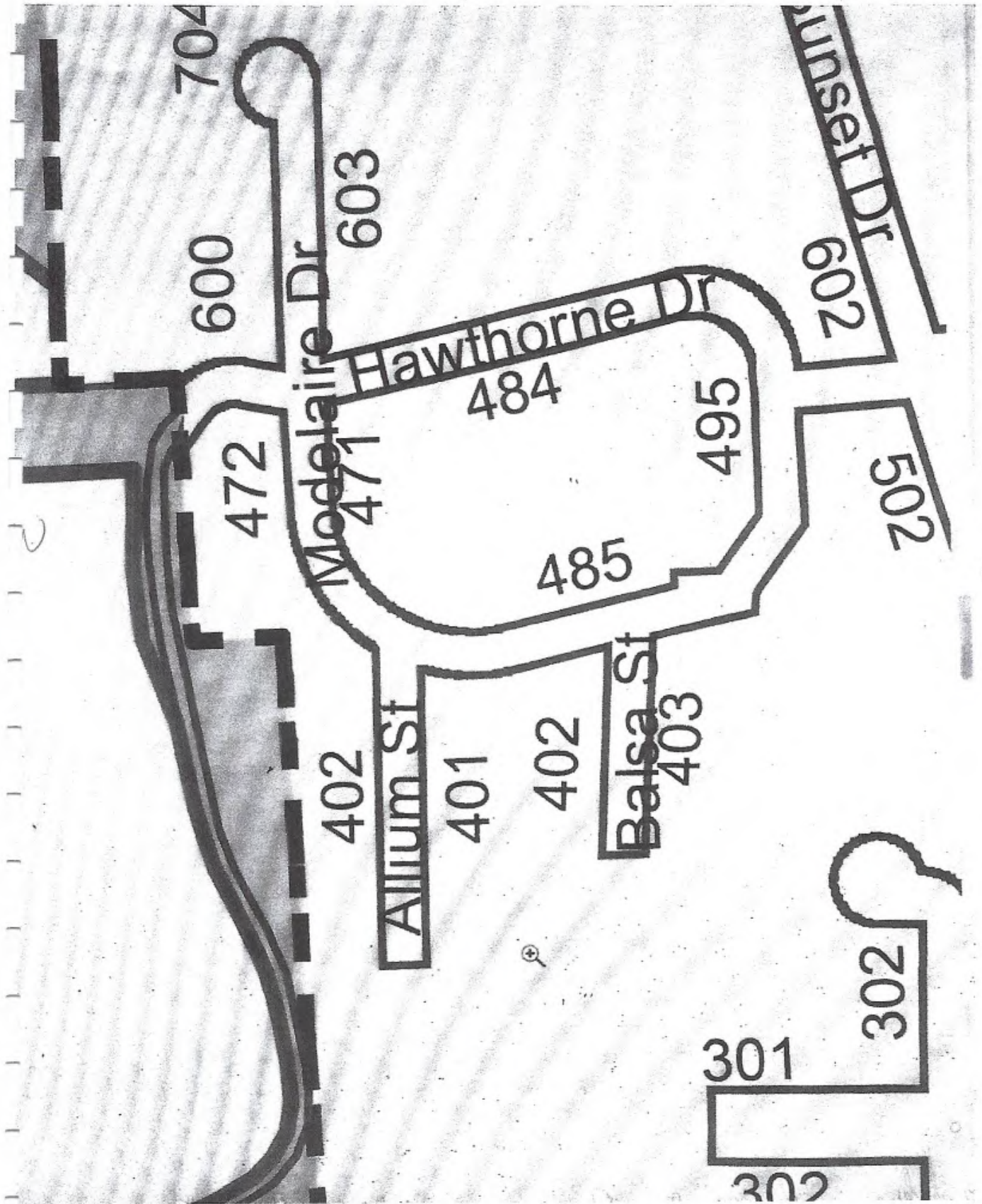


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



2

11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4a

8/5/2019

Oregon Secretary of State Administrative Rules

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

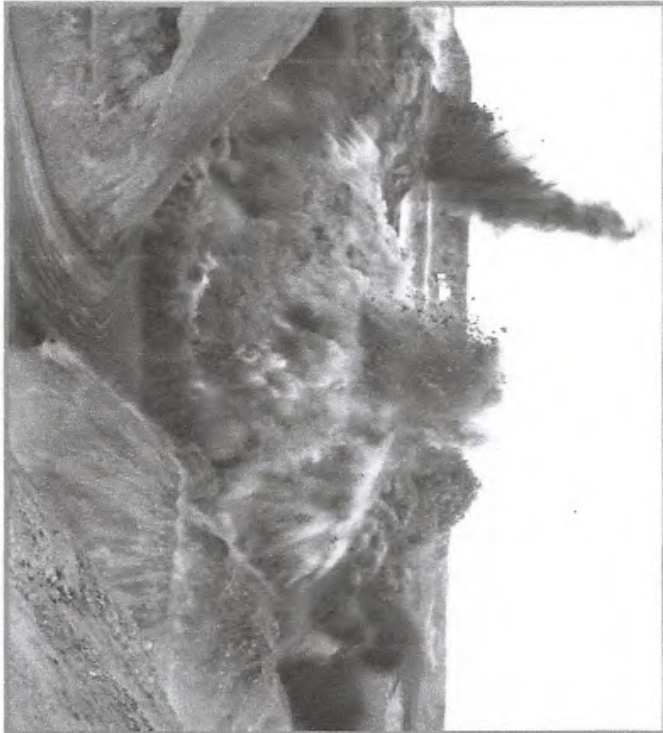
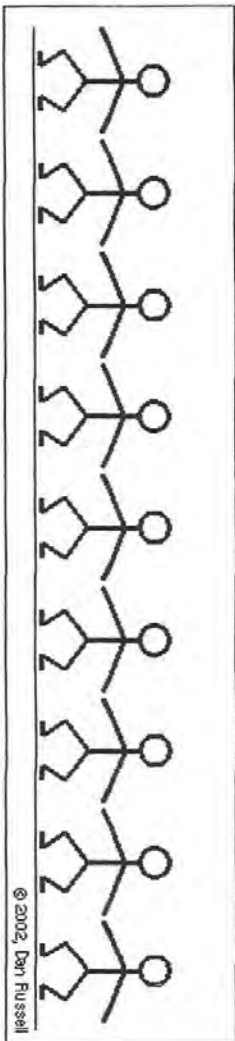


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

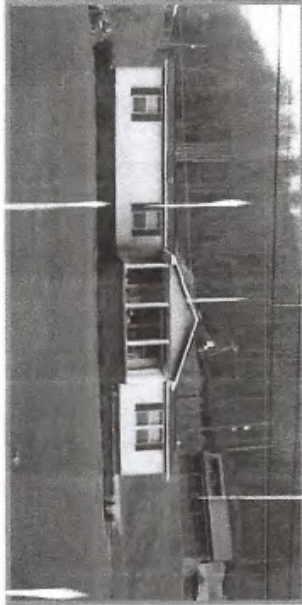
Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

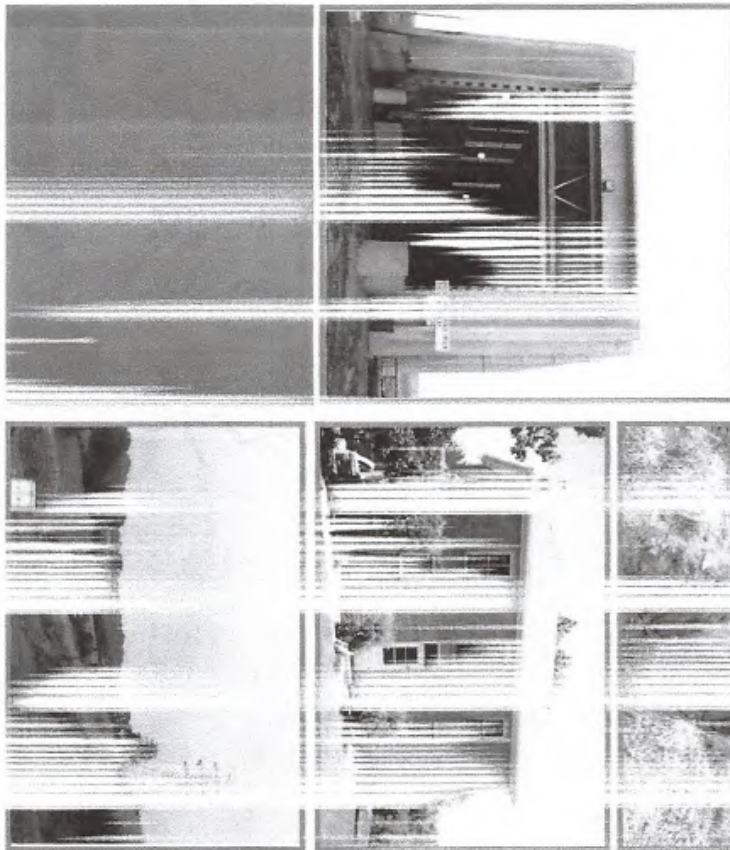
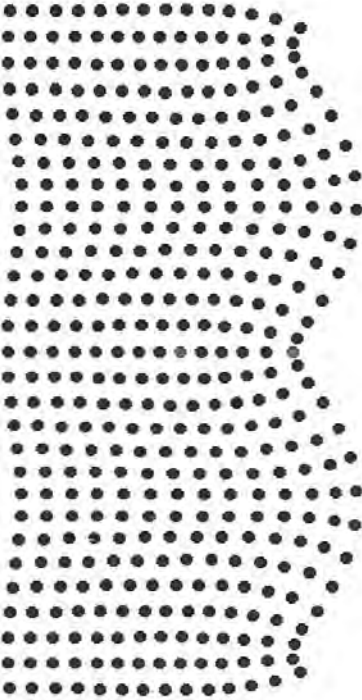


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

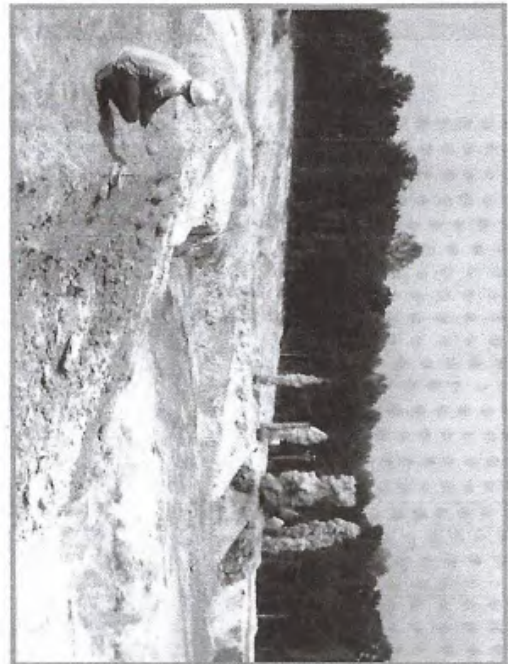
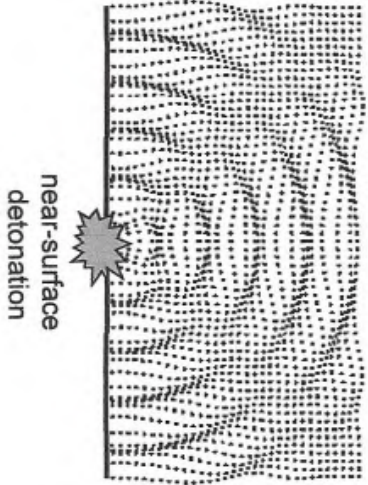
Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**. Airblast is a pressure wave that that may be audible or inaudible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations. Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

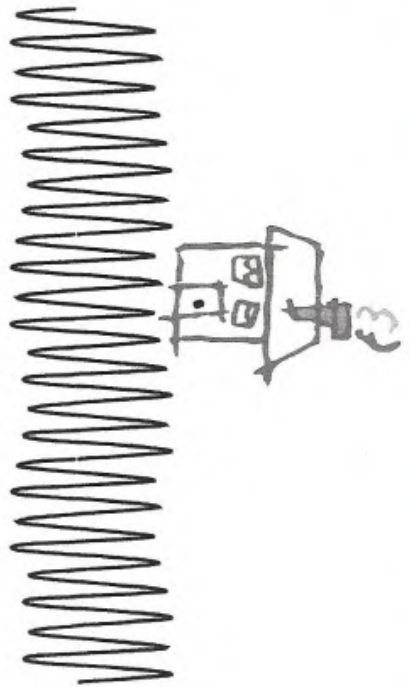
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.



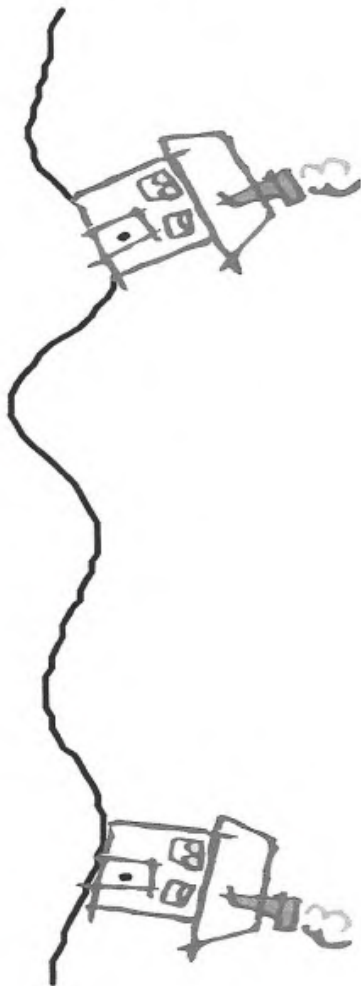
Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.

High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.



8/4/2019



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Trusted advice for a healthier life

A noisy problem - Harvard Health

Exhibit 16
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What can we help you find?



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HEALTH

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Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

8/4/2019

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



Front Psychol. 2013; 4: 578.

PMCID: PMC3757288

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PMID: [24009598](https://pubmed.ncbi.nlm.nih.gov/24009598/)

Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 1012

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q ☰

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)

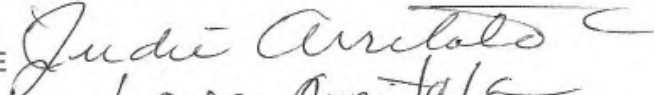


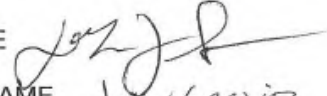
SCIENCE
NEWS


EXPERT
OPINION

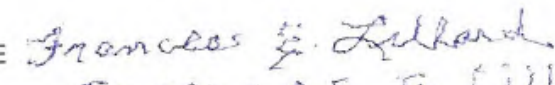
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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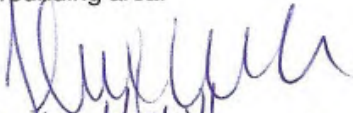
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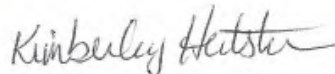
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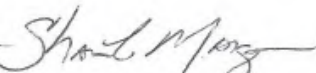
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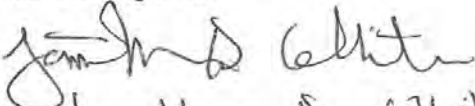
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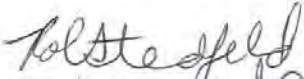
2409 E. M. Ave.

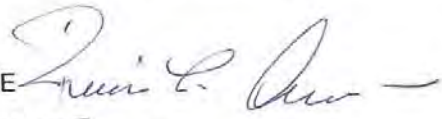
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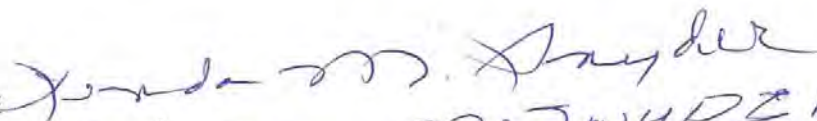
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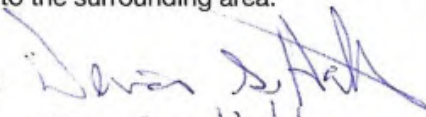
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SIGNATURE



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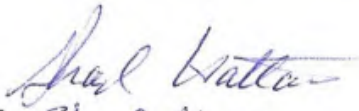
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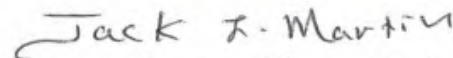
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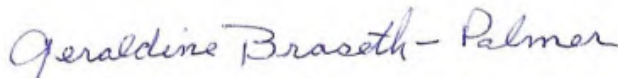
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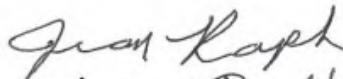
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Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) WAYNE KAAEN

Mailing Address (mandatory) PO BOX 402 Halfway, Ore

Phone Number (optional) () _____ Email Address (optional) _____

Today's Date: _____

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

<p style="text-align: right;">Page 50</p> <p>1 before. 2 Tonight I'm speaking a couple of times to the 3 people behind me. Because if you read the literature 4 that Idaho Power has provided in the fire prevention 5 area, it's as if the California fires never existed. 6 They have a sentence in there that says: "In operation, 7 the B2H line will not significantly increase fire 8 potential." 9 Now, the State of California, and the day 10 before yesterday the State of Nevada, have legislated 11 that their utility companies prepare a detailed fire 12 prevention plan. I have sent to the Chairman my letter 13 with details on what I think Idaho Power should do. 14 The other thing that I would like to talk to 15 the people sitting behind me, is in reclamation. Idaho 16 Power says that the power line will be active in 17 perpetuity; that means forever. They provide no data, 18 no references. 500-kilovolt power lines in the state of 19 Oregon have begun in the 1980s. That's not a hundred 20 years. 21 What's more, in reclamation, they say because 22 it's going to be forever, they're shifting the risk of 23 reclaiming the land to the public for the first 24 50 years, because they're not going to bond reclamation 25 after and during from the time that it's in operation</p>	<p style="text-align: right;">Page 52</p> <p>1 that's working for Idaho Power, in the burying of a 2 power line in Hailey-Sun Valley, Oregon [sic], that 3 they're having difficulty with because of scenic views. 4 POWER Engineering says this 1 1/2 miles here at the toe 5 of the foothill, sagebrush off irrigated land will cost 6 \$111 million. 7 If it's just a straight line, it doesn't cost 8 that much. In reality, they have not had a foot on the 9 ground that they have documented. They've not turned 10 over a shovel of dirt in front of that Interpretive 11 Center that they've documented. I've documented the 12 Chino Hills, and I've talked with those people. And 13 they say it's probably 50,000, but that's their guess -- 14 50 million, excuse me. 15 You will receive other letters from me rather 16 than speaking this last 4 minutes, but I would certainly 17 hope that you would seriously consider the 18 undergrounding. POWER Engineering in their estimate 19 states that they are a Level 5 estimate, based on their 20 civil engineering standards. They have given the 21 definition of a Level 5 as ratio, ballpark, blue sky, 22 seat of the pants, idea study, prospect, estimate, 23 concession, license, or guesstimate. That's their 24 definitions. You've got to do better. 25 Thank you very much.</p>
<p style="text-align: right;">Page 51</p> <p>1 until the first 50 years. Now, that's like not insuring 2 a new home because you don't think it's going to burn 3 down until it gets old. 4 They don't provide any data. Hard data. And 5 what's more -- I'm looking at Todd -- what's more, it 6 concerns me that the EFSC can approve without requiring 7 more detail. 8 Now, in the last 7 minutes, I have sent you 9 this letter as well, and again, I'm talking to the 10 people behind me, wearing my Oregon Trail cap. Exhibit 11 BB, section 3.4.2, the conclusion regarding 12 undergrounding the power line. Idaho Power continues to 13 says it's too expensive. I have sent to Mr. Beyeler, 14 the Chairman, and I don't know how far my letters go, 15 pictures of a comparison of 3.7 miles down in Chino 16 Hills, California, of a 500-kilovolt power line that was 17 put underground for 3.7 miles. Almost every foot of 18 that ditch had a infrastructure under the ground. That 19 cost \$224 million. 20 I've recommended, as I hope people in the 21 audience have, that the line be put underground in front 22 of the Interpretive Center. 23 For illustration purposes, Idaho Power has 24 used 1 1/2 miles and asked POWER Engineering, one of the 25 consultants, it's a good firm, but it's a consultant</p>	<p style="text-align: right;">Page 53</p> <p>1 HEARING OFFICER WEBSTER: Thank you. 2 After we hear from Mr. Kaaen, we will hear 3 from Bruce Owen. And if anybody else that has not yet, 4 that wants to be heard tonight, if you have not 5 completed a comment form, please do so and provide it to 6 staff. I think we will, after Mr. Owen, we've run out 7 of comments, people who want to comment at this point, 8 so we will take a break after that. And if anybody else 9 wants to be heard, we'll reconvene and hear from you. 10 UNIDENTIFIED SPEAKER: Can we have it quieter 11 in here? It's really noisy in the back. Can you 12 address the noise in the back of the room, please. 13 HEARING OFFICER WEBSTER: Well, I know that we 14 do have some people coming in to get their tacos and -- 15 UNIDENTIFIED SPEAKER: It's really hard to 16 hear. 17 HEARING OFFICER WEBSTER: Is it? 18 UNIDENTIFIED SPEAKER: Yes, it is. 19 HEARING OFFICER WEBSTER: I'm sorry about 20 that. And when you speak, if you'll speak into the 21 microphone. 22 MR. WAYNE KAAEN: Certainly. 23 My name is Wayne Kaaen. I'm from Halfway, 24 Oregon. Post Office Box 402, Halfway. I have property 25 which B2H is impacting. Obviously that's why I'm here.</p>

Page 54

1 I'd like to digress momentarily to put forth a
2 brief history of where I'm coming from. No. 1, I've
3 been here in this area long enough to remember some of
4 the promises that were made by Idaho Power. Fish
5 passage either fish ladder, trucks or with -- pardon me,
6 thank you, Todd -- or with the construction of
7 fish-raising facilities. In every case, they have
8 waffled under these regulations to which is part of
9 Oregon law.
10 I could go on and have reams of material I've
11 collected on this. I'll get to some of the more recent
12 things here. Idaho Power most recently went to Oregon
13 asking about changing the laws about fish habitat in the
14 Snake River. They managed to do it, not because Oregon
15 felt it was appropriate, this was against Oregon law as
16 it stood, but because our own politicians waffled
17 underneath this.
18 This has been done over and over again. Most
19 recently in the paper as of June 6, 2019, once again,
20 our own politicians waffled under the regulations of
21 fish habitat, the passage of Clean Water Acts. It goes
22 on and on.
23 From a personal standpoint, the property to
24 which I have that is being impacted, years ago, 20 years
25 ago, we were required by Oregon state law to build

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1 another road that did not follow a tributary to Ladd
2 Creek. That road was built because we were required by
3 Oregon law to do it. This very same power line that B2H
4 wants to put in impacts that same tributary. A 250-foot
5 wide swath of barren ground to which they said they did
6 not want a road, barren ground road next to the water
7 source that would impact the redband trout.
8 Question to Oregon I have: Why is it I have
9 to obey Oregon laws and Idaho Power does not?
10 The other thing I question about that, too, in
11 terms of habitat, if you look at an aerial photograph of
12 our place, it's the only place within miles that has
13 old-growth timber, that has been a wildlife habitat in
14 our family for 60 years. That, in effect, is going to
15 be erased by this B2H line.
16 The question remains: Who's running Oregon;
17 Idaho or the Oregon citizens?
18 CHAIRMAN BEYELER: I did have one question.
19 MR. WAYNE KAAEN: Yes.
20 CHAIRMAN BEYELER: The nature of the lobbying
21 that you have talked about with Idaho Power, that was
22 with the Oregon Department of Fish and Wildlife or the
23 Oregon DEQ?
24 MR. WAYNE KAAEN: Near's I can tell it was
25 both.

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1 CHAIRMAN BEYELER: Was the nature of it
2 nitrogen supersaturation?
3 MR. WAYNE KAAEN: It had to do with water
4 temperature, it had to do with fish passage, and it had
5 to do with pollution in the river. Those three items
6 are the items that I researched on.
7 CHAIRMAN BEYELER: Okay. Thank you.
8 MR. WAYNE KAAEN: This is all on the Internet
9 that I have got out. And the last portion is my own
10 personal experience. Everything before that is stuff
11 that I extracted off the Internet and Oregon laws.
12 CHAIRMAN BEYELER: Will that be submitted?
13 MR. WAYNE KAAEN: I thought I just submitted
14 it.
15 CHAIRMAN BEYELER: I mean in writing, the
16 article?
17 MR. WAYNE KAAEN: I can do that, but I cannot
18 afford a dozen Philadelphia lawyers to defend me either.
19 Idaho Power can and I can't. But I suppose I could get
20 somebody to write up something for me. Would that be
21 appropriate?
22 CHAIRMAN BEYELER: Yes.
23 MR. WAYNE KAAEN: Okay, Barry. Thank you very
24 much for that comment. I appreciate it.
25 HEARING OFFICER WEBSTER: And if you submit

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1 it, please do so by July 23rd.
2 MR. WAYNE KAAEN: Boy, that's quite a time.
3 That really puts me under the crunch. Okay. Thank you.
4 HEARING OFFICER WEBSTER: Thank you.
5 Mr. Owen?
6 And is there anybody on the phone that would
7 like to give comment? Hearing none, we will take a
8 break after we hear from Mr. Owen, probably about a
9 15-minute break, and then we'll reconvene and then I
10 have a comment card here, we'll hear from Idaho Power.
11 MR. BRUCE OWEN: My name is Bruce Owen. I
12 live at 27910 Oxman Ranch Lane in Durkee, Oregon.
13 HEARING OFFICER WEBSTER: Your street name
14 again.
15 MR. BRUCE OWEN: 27910 Oxman Ranch Lane,
16 Durkee.
17 HEARING OFFICER WEBSTER: Thank you.
18 MR. BRUCE OWEN: You're welcome.
19 Twenty-five years ago, I retired and moved to
20 a lifelong dream of mine, a ranch in the Durkee area. I
21 bought it because of the scenic value and the isolation
22 with that. And for 25 years I've lived happily on that
23 ranch with the elk and the deer, and all the other game
24 animals there.
25 There is a power corridor through Durkee right

August 16, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B@H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I have grave concerns about the proposed placement of the Idaho Power Boardman to Hemingway Transmission Project. My concerns are for the safety of myself, my family and the citizens of La Grande if this line is erected. My primary concerns are twofold: slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the ~~proposed~~ B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf).

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007),

Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were ALL ATTRIBUTED TO ELECTRICAL OR POWER LINES.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the City as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an UNACCEPTABLE risk for our citizens.

The current proposal for a Boardman to Hemingway electrical transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande. This proposal should be REJECTED.

Sincerely, 

Name
Address
I have been a proud, thankful
resident of the Grande Ronde Valley
for 28 yrs.

PO. box 71
Cove OR
97824

Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,



Name:

Doug Kaigler

Address:

PO Box 71
Cove OR
97824

long time resident of
Union County.



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Sheri Kanig

Mailing Address (mandatory) 331 S. West Street
Yuba, CA 96097

Phone Number (optional) (541) 228-5440 Email Address (optional) scanig@hotmail.com

Today's Date: 6-20-19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony
(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

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1 \$100,000 in funding for improvements to Morgan Lake to
2 mitigate the impacts on recreation should the Morgan
3 Lake alternative be constructed. Idaho Power has agreed
4 to this condition as well.
5 I want to say this again: Please do not
6 interpret the City's willingness to agree to
7 mitigations, that I just meant it as support or
8 acceptance of the project. We remain firmly opposed,
9 firmly opposed to the project for the reasons identified
10 in our 2017 comments of the preliminary application.
11 We respectfully ask that EFSC require the
12 mitigation we are seeking in the final order if the
13 project is approved. And while I have only a modicum of
14 the compassion as Peter Barry, just say no.
15 HEARING OFFICER WEBSTER: Next, we have
16 Mr. Larkin followed by Sheri Kanig.
17 MR. GREG LARKIN: Good evening. My name is
18 Greg Larkin. I reside at 59655 Morgan Lake Road. I
19 live on the top of Morgan Lake Road directly across from
20 the entrance into Morgan Lake.
21 The Morgan Lake alternative route of the Idaho
22 Power transmission line would be located approximately
23 120 yards from my residence. I'm in the process of
24 developing my second approved home site on this
25 property, which would be even in a closer location of

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1 this transmission line in proximity to it.
2 I spent many years as a locomotive engineer
3 for the Union Pacific Railroad. I suffered a permanent
4 disability of hearing loss and tinnitus that forced me
5 away from this career.
6 I can read you a screenshot from Wikipedia on
7 tinnitus: "Tinnitus is the hearing of sound with no
8 external sound present. While often described as a
9 ringing, it may also sound like a clicking, hiss or
10 roaring. Rarely, unclear voices or music are heard.
11 The sound may be soft or loud, low pitched or high
12 pitched and appear to be coming from one ear or both.
13 Most of the time, it comes on gradually. In some
14 people, the sound causes depression or anxiety and can
15 interfere with concentration."
16 I am real bad in the last 3 years. When I
17 left the railroad in '87, I had a testing in 1985, my
18 ears rang at that time 57 decibels. Approximately
19 10 years ago, one ear was at 72 decibels, the other one
20 was at 75 decibels.
21 Now, I have great concerns, and I've been
22 around the transmission lines before where I cannot
23 stand them, and if this is this close to my home. And
24 then to cope with it up there, or to tolerate it, I've
25 done a lot of pruning and thinning of the trees to get

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1 the wind patterns to different velocities of wind to
2 seek some relief from this, and I've been able to create
3 this type of environment here.
4 Now, the facts of this B2H coming through my
5 property, without it being there, can almost put a
6 person a little over the top that way. It affects me
7 every second of every day. It's a 100-pound drill
8 lodged in their back, to characterize it.
9 If this transmission line were to go through
10 at this location, I would no longer be able to reside or
11 fulfill my lifetime dreams and goal of living here. And
12 I don't have the time nor the resources or anything else
13 to seek the relief I've sought or the little bit of
14 tranquility to deal with this issue. Well, I will leave
15 it at this, and then I'll address some more issues.
16 As far as pertaining to the sound, the static
17 hiss of this line for the peace and tranquility of our
18 lake up there. We have a gas line that goes through,
19 this line and this route will cross this gas line twice.
20 If we have heavy fogs or a rainstorm, that can transmit
21 a spark to the ground and create a fire, the electronic
22 field.
23 Again, I'll repeat myself. The health hazards
24 of this to people in this close of proximity. And the
25 deterioration, even in the ground, the potential

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1 deterioration in the ground of this gas pipeline. The
2 technology, I don't know, as it goes over, through this
3 route. It had to. There is no longer a route that was
4 the western route that was on the radar and it's
5 disappeared, it's gone away. And viably the effect on
6 our county here, if that route were to go through in
7 that direction, it would most likely have no less impact
8 on our county here, to the residents.
9 I'm not a public speaker. I'll address it
10 further in some written comments. I'll have some
11 assistance on that.
12 I thank you for your time.
13 HEARING OFFICER WEBSTER: Thank you.
14 We have Sheri Kanig, and following we will
15 hear from William Whitaker.
16 MS. SHERI KANIG: Good afternoon or evening,
17 everyone. My name is Sheri Kanig, and I reside at 331
18 Southwest Street in Yreka, California. That is located
19 in the Klamath National Forest in Siskiyou County,
20 northern California. I am not a resident of La Grande
21 but a volunteer and a tourist.
22 I have been a co-owner of a large logging
23 company in the Klamath National Forest for many years
24 and also participated in fire suppression. I guess my
25 issues today are regarding the fire danger because of

**Input on Draft Proposed Order for the Boardman to
Hemingway Transmission Line**

**Hearing
June 20, 2019**

<p style="text-align: right;">Page 98</p> <p>1 this line. 2 I've also worked for the Happy Camp Ranger 3 District in the Klamath National Forest and worked on 4 active forest fires. I have flown with pilots over the 5 fires and seen the devastation caused to the habitat and 6 to the animals. The animals can't be forgotten. 7 I have many relatives that dedicated their 8 careers to protecting the towns and forests from 9 wildland fires. These fires put the lives of 10 firefighters, volunteers, residents, habitat, and 11 wildlife in jeopardy. 12 Living in Happy Camp at one time, I've been 13 totally surrounded by a forest fire. All of our crew 14 had to work on this fire. There were many dangers, we 15 lost some of our vehicles, and the fire and long-lasting 16 smoke caused severe health issues in many residents, 17 including my father-in-law who passed away a couple of 18 years later. He was a fire officer for the Forest 19 Service for about 25 years. 20 I'd like to talk about a fire that affected 21 many people that I knew. In November of 2018, near 22 Paradise, California, a fire started on the 56-mile 23 Caribou-Palermo Electric transmission line. This fire 24 started at 6:33 a.m. near a tower in Pulga -- I may be 25 saying that wrong -- in Paradise. That day utility</p>	<p style="text-align: right;">Page 100</p> <p>1 say this area holds a serene and untouched beauty. The 2 landscape and wildlife are stunning; the elk, the deer, 3 everything that you see every single day. 4 I spent the past two days on a parcel of land 5 right across from Morgan Lake. We hiked for many hours 6 and saw all the wildlife, the beauty, the untouched 7 beauty of this area. 8 I think that the building of this power line 9 will devastate this beauty, and I feel that this should 10 not go on. That is all I have to say. 11 Thank you. 12 HEARING OFFICER WEBSTER: Thank you. 13 After Mr. Whitaker is Thomas Thompson. 14 MR. WILLIAM WHITAKER: Good evening. My name 15 is Bill Whitaker. I live here in La Grande at 1108 G 16 Avenue, about a mile away from Morgan Lake Road. 17 I'm vice chair of the Board of Oregon Rural 18 Action. ORA is a member organization of the Stop B2H 19 Coalition. ORA believes that local residents, ordinary 20 people, should be the people who are able to decide the 21 impact of issues that dramatically affect their lives, 22 our lives, not corporate interests making those 23 decisions. 24 We have many concerns about the necessity for 25 the cost of and the impact of the B2H transmission line.</p>
<p style="text-align: right;">Page 99</p> <p>1 workers discovered that a part had separated from an arm 2 on the tower, and that is what started that portion of 3 the fire. 4 The Camp Fire in Paradise killed 85 people, 5 destroyed 18,804 structures, and burned 153,336 acres. 6 That is a huge devastation. 7 Cal Fire also identified a second ignition 8 site. The second fire was determined to be vegetation 9 that got into an electrical distribution line, owned and 10 operated also by PG&E. Not many people know that there 11 was a second cause to that fire. Those fires both 12 emerged. 13 Many family and friends that I know live in 14 Paradise. They lost their homes, their pets, their 15 livelihood. How can that ever be recovered? 16 If you drive through northern California on 17 Interstate 5 from the Oregon border, you just have to 18 look around. You could probably go 20 miles and notice 19 there was another wildfire and the total devastation 20 that it caused. 21 Fires have increased each year that goes by 22 and become larger and more devastation caused; animals, 23 plants, people, homes. I mean, what can I say. 24 As a tourist and visitor from a state 25 devastated by wildfire each and every year, I can only</p>	<p style="text-align: right;">Page 101</p> <p>1 I will be submitting a detailed report, but in light of 2 the fact that many of the things that you have heard 3 already tonight, I won't repeat. I want to just speak a 4 bit from my heart. 5 Idaho Power stated that it intended to 6 construct its proposed power line on a route that had 7 the most support from the community, that had the least 8 impact on the community. The route chosen clearly lacks 9 support from citizens of La Grande and Union County. It 10 simply is not something that we want to have here 11 affecting our community in many ways. 12 We are asking you to consider some of the 13 impacts of this line on our community. We want you to 14 consider, to think about the impact of construction 15 traffic on our residential neighborhoods and the 16 deterioration that it will cause to our streets and 17 roads, and the danger that it would present to 18 pedestrians walking in these neighborhoods, many of 19 which don't even have sidewalks. 20 We want you, please, to consider the negative 21 impact of the project on our unique Morgan Lake Park. 22 You have heard vivid testimony about what the impact of 23 power transmission towers towering 40 feet above the 24 forest canopy in Morgan Lake would cause to the 25 viewshed, the solitude, the beauty of that area.</p>

Pg 1

My name is Sheri Kang. I reside at 301 S. West St. Ureka, Ca. in the Klamath National Forest in Siskiyou County. I am not a resident of LaGrande but a visitor & tourist.

I have been a co-owner of a large Logging Company in that same forest for many years & also participated in fire suppression when needed.

I have also worked for the Happy Camp Ranger District of the Klamath NF. & worked on active forest fires. I have flown over fires & seen the devastation to habitat & wildlife on these fires.

Living in Happy Camp when it was totally surrounded by wildfire the health of many residents were comprised.

In a Nov. 2018. Near Paradise, Ca. a fire started on the 56 mile Caribou Palermo Electric Transmission line. This fire started near Paradise in Pulga, CA. Later that day utility workers discovered that a part had separated from an arm on the tower which started this fire.

The Camp fire killed an estimated 85 people, destroyed 18,804 structures & burned 153,336 acres.

Cal Fire identified a second ignition site "The Second Fire" was determined to be vegetation into the electrical lines owned & operated also by PG&E this fire connected to the ^{first fire.}

Many families & friends I know that lived in Paradise lost their pets & livelihoods. How can this be recovered?

In addition to this fire PG&E recorded 1 billion dollars charge for liability from wildfires in 2017 alone

Pg. 2.

If you drive thru Calif on the I 5 corridor from the Oregon border thru Northern Ca., you can visibly see the damages caused by Wildfires in many locations thru-out the North state.

Fires have increased as each year goes by & become larger & more devastation. Animal & plant habitat destroyed.

As a tourist & visitor from a State devastated by wildfires each & every year I can only say this area holds a serene untouched beauty. The landscape & wild life are stunning. The adverse conditions that will effect the life personally in the powerline zone could never be replaced.

In the past two days I have spent hours near the Morgan Lake area hiking on a friends large parcel of property. It's serene beauty would be directly impacted by the building of D&H. His home is within 150 yards of this line.

Aheric Spring

June 19, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B@H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

As a citizen of La Grande and Oregon. I have concerns about the proposed placement of the Idaho Power Boardman to Hemingway Project. My concerns are for the safety of myself, my family and the citizens of La Grande if this line is erected. My primary concern are the slope instability.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is "severe." Below is part of the report.

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the area west and south of La Grande. the majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Fern and others (2018). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso,

Washington, was the site of a catastrophic mudslide as a result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologist's warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics which employs hundreds of people and is a critical access hospital for this region. La Grande High School, Central Elementary, and our middle school are also positioned down from the proposed towers. At least 100 homes (mine included in these) are positioned down the slope of these proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is NOT a safe place for a transmission line.

The current proposal proposal for a Boardman to Hemingway electrical transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build, this is UNACCEPTABLE. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande. This proposal should be REJECTED.

Sincerely,



Mark Karl
906 Third Street
La Grande, OR 97850

m_karl2@hotmail.com

August 11, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B@H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

As a citizen of La Grande and living less than 1/2 mile from some of these towers. I have grave concerns about the proposed placement of the Idaho Power Boardman to Hemingway Transmission Project. One of my concerns are the weeds.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city.

The Weed Plan, DPO-Attachment P 1-5: The applicant does not comply, as required, with Oregon statutes. OAR 345-025-0016 states "In the site certificate, the Council shall include conditions that address monitoring and mitigation to assure compliance with standards contained in OAR Chapter 35, Division 22 and Division 24."

Idaho Power claims no responsibility for weeds outside the right of way (ROW) or those present outside the project that are likely to spread, even though the weeds at the site would disperse to areas outside the ROW. There is no assurance that noxious weeds at the site would not be allowed to go to seed.

The current proposal for a Boardman to Hemingway electrical transmission line offers an unacceptable omission for these weed concerns. All of the routes proposed make our country side a conduit with no benefit, and create an unacceptable risk to the lands around La Grande.

This proposal should be REJECTED.

Thank you for your time,



Mark Karl
906 Third Street
La Grande, OR 97850

June 19, 2019

Energy Facilities Sitting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B@H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
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As a citizen of La Grande and living less than 1/2 mile from some of these towers. I have grave concerns about the proposed placement of the Idaho Power Boardman to Hemingway Transmission Project. My main concern are for the safety of myself, my family and the citizens of La Grande, and patients that are at the hospital if this line is erected. Which is wildfire hazard.

Oregon is ranked 8th Most Wildfire Prone state in the United States according to Versisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf).

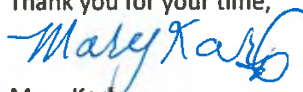
Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were ALL ATTRIBUTED TO ELECTRICAL OR POWER LINES.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing (my house) within the City three schools and the Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. according to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. a fast-moving fire starting at the B2H lines could move to residential areas of La Grande and the HOSPITAL in 10 minutes. This is frightening and an UNACCEPTABLE risks for our citizens.

The current proposal proposal for a Boardman to Hemingway electrical transmission line offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are

unsafe and create an unacceptable risk to the citizens of La Grande. This proposal should be REJECTED.

Thank you for your time,



Mary Karl
906 Third Street
La Grande, OR 97850

m_karl2@hotmail.com

August 11, 2019

Energy Facilities Sitting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B@H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

As a citizen of La Grande and living less than 1/2 mile from some of these towers. I have grave concerns about the proposed placement of the Idaho Power Boardman to Hemingway Transmission Project. One of my concerns are the weeds.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city.


The Weed Plan, DPO-Attachment P 1-5: The applicant does not comply, as required, with Oregon statutes. OAR 345-025-0016 states "In the site certificate, the Council shall include conditions that address monitoring and mitigation to assure compliance with standards contained in OAR Chapter 35, Division 22 and Division 24."

Idaho Power claims no responsibility for weeds outside the right of way (ROW) or those present outside the project that are likely to spread, even though the weeds at the site would disperse to areas outside the ROW. There is no assurance that noxious weeds at the site would not be allowed to go to seed.

The current proposal for a Boardman to Hemingway electrical transmission line offers an unacceptable omission for these weed concerns. All of the routes proposed make our country side a conduit with no benefit, and create an unacceptable risk to the lands around La Grande.

This proposal should be REJECTED.

Thank you for your time,


Mary Karl
906 Third Street
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Megan Keating <megank495@gmail.com>
Sent: Wednesday, August 21, 2019 4:43 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order.
Attachments: Keating Letter.docx

Please find attached my comment on the Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order.

Sincerely,
Megan Keating

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Sent Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Anadromous Fish in Ladd Creek, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. Specifically, I am protesting as a concerned citizen regarding the B2H Draft Proposed Order, the Final Environmental Impact Statement, and the project's plan regarding wild and threatened fish.

As a frequent visitor to La Grande, Oregon and the surrounding natural areas I am deeply concerned about the project's effect on wild and threatened fish. It is absolutely critical to protect these habitats.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

The Oregon Department of Fish and Wildlife's Mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The department is the only state agency charged exclusively with protecting Oregon's fish and wildlife resources. The state Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources.

The B2H Draft Proposed Order (page 9-10 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*), states that Ladd Creek and its tributaries contain only local fish (trout), but **that status has changed** due to major culvert work along and under the I-84 interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see

<https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction has resulted in costs over 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and ([PPT] Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species (ESA). The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

The B2H Draft Proposed Order contains the following outdated information:

1. In *Table 1. Road-Stream Crossing Ownership, Risk Summaries, Proposed Crossing Types, and Fish Passage Information* Idaho Power names 5 waters in the Ladd Creek area (page 9-11 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*) with stream crossings. The report states that the only fish in these waters are resident fish. This information is now incorrect.
2. The B2H Draft Proposed Order states that for all of Ladd Creek and its tributary streams that "No new ODFW fish plan anticipated." (page 9-11 of Attachment BB-2). It cannot be overemphasized that this information is now incorrect.
3. The alternative route Idaho Power has chosen will necessitate a 3a/3b (page 11 BB-2) design change for a bridge crossing on Ladd Creek if this route is chosen, this will trigger an ODFW fish passage plan to be implemented (OAR 17 412-0035) based on Oregon Administrative Rules (OAR) 635-412-0020. Again, the B2H Draft Proposed Order information is now incorrect.

Because of the change of status of the fish population in Ladd Creek, the B2H Draft Proposed Order is out of compliance with several Federal and State laws including:

1. ORS 509.580 through 509.910: *Fish Passage; Fishways; Screening Devices; Hatcheries Near Dams*
2. OAR 635-41-0005 through 635-412-0040: *Fish Passage*
3. *Oregon Forest Practice Administrative Rules and Forest Practices Act, OAR Chapter 629 (ODF 2014)*
4. *Forest Practices Technical Note Number 4, Fish Passage Guidelines for New and Replacement Structures (ODF 2002)*
5. *Fish and Wildlife Mitigation Policy (OAR 635-415-0000), which states that :*

- (a) The mitigation goal if impacts are unavoidable, is no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality.
- (b) The Department shall act to achieve the mitigation goal for Category 2 habitat by recommending or requiring:
 - (A) Avoidance of impacts through alternatives to the proposed development action; or
 - (B) Mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality. In addition, a net benefit of habitat quantity or quality must be provided. Progress towards achieving the mitigation goals and standards shall be reported on a schedule agreed to in the mitigation plan performance measures. The fish and wildlife mitigation measures shall be implemented and completed either prior to or concurrent with the development action.
- (c) If neither 635-415-0025(2)(b)(A) or (B) can be achieved, the Department shall recommend against or shall not authorize the proposed development action.

In conclusion, the B2H Draft Proposed Order contains an improper evaluation of the potential short and long term negative impacts to the fish habitat in the Ladd Creek drainage, including surrounding creeks, given the fact that species listed as threatened under the Endangered Species Act are now returning to Ladd Creek, with their numbers expected to increase in upcoming months and years.

Sincerely,

Megan Keating
5922 SE Holgate Blvd
Portland, OR 97206
MeganK495@gmail.com
(508)-681-5921

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.

Ursula Kelley DVM

Signature

Ronald B. Kelley, Ph.D.
Mailing Address: *402 Walnut St.*
La Grande OR
97850

Ursula Kelley DVM

Printed Name

Ronald B. Kelley, Ph.D.

August 10, 2019

Energy Facilities Siting Council

c/o Kellen Tardaewether, Siting Senior Analyst

Oregon Department of Energy

550 Capitol St. N.E.

Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

Re: Geological Hazards and Soil Stability; Exhibit H.

Re: **Geologic Hazard Protection - Drill site 95/3 and 95/4 on unstable and steep slopes in an active seismic zone**

My comment addresses the danger that construction and operation of an additional transmission line in an active seismic zone presents to the public, both local area residents and travelers on the nearby Interstate 84.

The relevant standard is the 345-022-0020 Structural Standard:

“(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility;”

(d) The applicant can design, engineer and construct the facility to avoid dangers to human safety and the environment presented by the hazards identified in subsection (c).

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

The construction process is described in detail in 3.9 Mitigation of the Exhibit H of IPC's ASC. Specifically, the area at or near **Drill site 95/3 and 95/4** is shown and described on the following tables and maps:

Exhibit H – Attachment H-1 Appendix B Soils Data Tables and Maps by Shannon & Wilson, Inc.:
Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. Sheet 3 of 4

Exhibit H – Appendix C: Summary of Proposed Boring Locations:

Map Sheet 36 - Drill site 95/3 and 95/4

Exhibit H – Table C1: Summary of Proposed Borings – Sheet 2 of 8

95/3 – cited for Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard;
Road and railroad crossing

95/4 – cited for Angle change along alignment; Road and railroad crossing

Exhibit H - Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5,6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

The relevant standard is the 345-022-0020 Structural Standard:

“(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility;”

(d) The applicant can design, engineer and construct the facility to avoid dangers to human safety and the environment presented by the hazards identified in subsection (c).

The applicant has not fully described the risks of heavy construction in this area. What mitigation methods would be required to place earthquake resistant towers on unstable slopes, in an active seismic zone, if the area suffered an earthquake of the intensity that formed these slopes.

Special Paper 6, included on the DOGAMI website, describes an extensive study done in 1979 by the Geoscience Research Consultants in Moscow, Idaho and State of Oregon Department of Geology and Mineral Industries on the seismic history of the Blue Mountains and the La Grande area. The introduction of this paper is closes as follows: **“In summary, consistencies of structural trends, compatibility of the Blue Mountain folding to backslope faulting in the La Grande area and systematic distribution in the orientation of linear trends favor northwesterly compression as the tectonic control in the study area. Furthermore, the general lack of interference, or lateral offset of linears or of any of the intersecting faults, as is discussed in the next sections, suggest that all of the post-Columbia River Basalt Group structures in the area near La Grande have been created in response to only one major tectonic episode.”**

Further in the same paper **“The Graves Creek-Rock Creek-Coyote Creek area has the greatest density of faults within the study area. At least six major and several minor northwest-trending faults of the Rock Creek fault system occur in the area (Plate 1). The Graves creek fault can be traced from the eastern edge of Sec. 7, T35S, R37E to the southern boundary of the Hilgard 7 ½ - minute quadrangle, a distance**

of about 6 mi (10 km). The Graves Creek fault probably extends farther southeastward beyond the map area. Offset across this fault is 265 ft (80 km) in Sec. 34, T 35S, R37E."

The IPC ASC to the EFSC (Exhibit H – Attachment H-1, page 28) includes the following brief description of the area: The Mt. Emily Section (802) is described as "an 18 mile fault, forming a steep range front from Thimbleberry Mountain to the mouth of the Grande Ronde River Canyon, by Personius, compiled by the U.S. Geological Survey website and assessed in 11/16/2016."

"The West Grande Ronde Valley fault zone may be active. Subtle topographic features indicate that there may have been earthquakes that broke through the ground surface as recently as the last 10,000 years. Previous studies indicate that the West Grande Ronde Valley fault is capable of generating a magnitude 7 earthquake." From Summary of the La Grande Quadrangle Geology" also on DOGAMI website.

DOGAMI recommendations for protection of the Portland's infrastructure HUB in the secondary flood zone of a possible Cascadia Subduction Fault earthquake/tsunami have been largely unimplemented for lack of funding, as is the ShakeAlert system which, unless funded will not be available in Oregon until 2021 at the earliest. ShakeAlert is an early warning system being developed by USGS. Oregon made national news when "Governor Brown signed HB 3309, which amended the previous law to no longer prohibit the construction of building such as hospitals and schools and other emergency-preparedness centers in tsunami inundation zones along the coast. The bill had bipartisan support and bucked standards held for twenty-five years keeping those facilities out of harm's way should a massive tsunami hit." Wisely, some cities along the coast continue following original DOGAMI assessments and recommendations concerning new infrastructure built away from the inundation zone. How this will impact funding assistance to move the existing schools, hospitals, city halls and emergency services?

Clearly Oregon legislative priorities have moved away from seismic hazard emergency preparedness, but this potential hazard to the area brings with it considerable risks, despite the proposed construction "mitigation" methods. It is within the EFSC's judgment to decide against adding an additional hazard to the natural and infrastructure hazards the citizens of this area already live with.

There are dangers both to human safety and the environment with an additional transmission line in a possibly quite seismic area, so close to the heavily traveled I84 transportation/utility corridor, the Hilgard Junction State Recreation Area and the Grande Ronde river. Further study and subsequent intrusive construction will not reduce the risks to the safety of the travelers through this canyon or the residents of the valley nearby. The application does not comply with the relevant standard.

Remedies:

Additional study of the probable seismic hazards; including ground failure, landslide, cyclic softening of clays and silts, etc. as required by OAR 345-022-0020, Rev. subsection 12. "The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule seismic hazard includes ground shaking, ground failure, landslide, liquefaction, triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction.

Disqualify this route as an unreasonable risk for a site for an additional high voltage power facility and too close in proximity to Hilgard State Recreational Area, and the I84 transportation/utility corridor.

Additional letter of credit dedicated solely for financial restitution necessary to restore potential damage caused by any of the above in an amount sufficient to restore the surrounding environment and infrastructure, both publicly and privately owned.

Thank you for your consideration,

Sincerely,  

Name: Ursula Kelley DVM and Ron Kelley PhD

Address: 402 Walnut Street, La Grande OR 97850

References

Barrash, Warren, John G Bond, John D. Kauffman, and Ramesh Venkatakrishnan, 1980, Geology of the La Grande Area, Oregon: Oregon Department of Geology and Mineral Industries Special Paper 6.

Brown, Jordyn The Register-Guard; July 12, 2019 *Oregon's Lawmakers put earthquake, hazard preparation on back burner.*

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 *SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2*; Oregon Department of Geology and Mineral Industries.

Ferns, Mark L. McConnell, V. S., Madin, I.P., and Johnson, J.A., 2010 Geology of the Upper Grande Ronde Basin, Union County, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report 2003-11, 85.0, scale 1:125,000.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy, Energy Facility Siting Council, OAR Amend: 345-022-0020; *Structural Standard EFSC 2-2017 Chap. 345, Division 22; General Standards for Siting Facilities.* Effective date: 10/18/2017.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018, Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035, page 28 and elsewhere.

Loew, Tracy, *Salem Statesman Journal* ; June 24, 2019 *Oregon Legislature Repeals Tsunami Zone Building Law.*

Personius, S. F. Compiler, 202c, Fault number 802a West Grande Ronde Valley fault zone, Mount Emily section, in Quaternary fault and fold database of the United States: U. S. Geological Survey website <http://earthquakes.usgs.gov/hazards/qfault>, accessed 11/16/2016 06:23 PM

Schlicker, H. G. and Deacon R. J. 1971 Engineering Geology of the La Grande Area, Union County, Oregon: Oregon Department of Geology and Mineral Industries Open File Report O-1971-03, 16 p., 1 plate, scale 1:24,000.

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard. Our neighborhood has experienced two episodes of flooding from these slopes in the last ten years after hard rains, and I am concerned that construction as planned will exacerbate slope instability.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

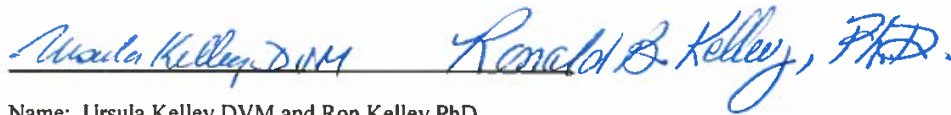
Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,

Handwritten signatures of Ursula Kelley DVM and Ronald B. Kelley, PhD. The signatures are written in blue ink and are positioned above a horizontal line.

Name: Ursula Kelley DVM and Ron Kelley PhD

Address: 402 Walnut Street
La Grande, OR. 97850

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I doubt it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power's ASC. If the IPC surveying and engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it's disquieting to imagine their difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake routes, rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by a individuals whose remote properties and summer cabins would have been impact by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASC and DPO. EFSC must deny the site certificate!


Signature

Name: Ursula Kelley DVM and Ron Kelley PhD

Address: 402 Walnut Street, La Grande OR 97850

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence. As a local veterinarian, I have met local ranchers and farmers, sportsmen, outdoor enthusiasts, Eastern Oregon University faculty, staff and students, and community members of all ages and occupations. All of us treasure Morgan Lake and the surrounding Blue Mountains for the beauty, wildlife, recreational opportunities, and the ability to escape to the peace, tranquility, and healing that undisturbed nature can provide.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.


(Signature)

Name: Ursula Kelley DVM and Ron Kelley PhD

Address: 402 Walnut Street, La Grande OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT


Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,

 
Signature

Printed Name: Ursula Kelley DVM

Mailing Address:
402 Walnut Street
La Grande OR 97850



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) BRIAN KELLY

Mailing Address (mandatory) PO Box 2768
LA GRANDE OR 97850

Phone Number (optional) 541 963-3950 Email Address (optional) brian@hellocanyou.org

Today's Date: 6-20-19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly - Use the back for additional space if needed. Additional written comments may be attached to this card.)

<p style="text-align: right;">Page 58</p> <p>1 the road to visit, and even more park goes. That road 2 is steep, it's a 17-degree slope. They don't even let 3 you build those anymore. Besides it being steep, it's 4 narrow, windy, and in bad shape. Except for a few days 5 after its annual grading, which they just did, in case 6 you want to drive up there, I imagine, the road is 7 bumpy, rutted and loose with gravel. 8 Earlier this year a car-sized section of the 9 road slumped more than a foot, causing one-way traffic 10 for more than 3 weeks. Last year a long section of 11 guardrail simply fell off the side of the road and 12 remained off for months. 13 The prolonged pounding of large tires on heavy 14 construction vehicles going up and down the road, that 15 application says it will cause only temporary and less 16 than significant impact. That is just not true. There 17 will be significant impact to the daily users and 18 significant and probably long-term impact to the 19 condition of the road. 20 And finally there is the future. The 21 likelihood for this area to become a utility corridor. 22 Imagine a guy showing up on your front doorstep and just 23 moving in, uninvited, unwanted, parking in your 24 driveway, throwing stuff around your house, making noise 25 and dust, wrecking your view for months, and you get no</p>	<p style="text-align: right;">Page 60</p> <p>1 scenic vistas of the mountains surrounding our valley. 2 Many out-of-town visitors are drawn to Union County 3 because of this scenic beauty. Placement of these 4 towers will certainly have an impact on this part of our 5 tourism. 6 I often take early morning walks and am in awe 7 of the beauty that surrounds us, especially in my views 8 to the southern end of the valley where I reside. I 9 have always considered myself fortunate to live in such 10 a spectacular area. I am extremely concerned as to the 11 blight these towers will place upon our viewshed. 12 Currently, I look out and see a ridge line 13 topped with green trees that presents a spectacular 14 view. This will forever be changed and irrevocably 15 harmed by the placement of these towers. Please 16 consider the aesthetic needs and economic interests of 17 our beautiful valley and take the responsible action 18 against the siting of these towers in our valley. 19 Thank you for your time. 20 HEARING OFFICER WEBSTER: Thank you. 21 Following Mr. Kelly, we will hear from Anita 22 Metlen. 23 MR. BRIAN KELLY: Good evening. I'm Brian 24 Kelly, B-r-i-a-n, K-e-l-l-y. My address is PO Box 2768 25 in La Grande, Oregon 97850.</p>
<p style="text-align: right;">Page 59</p> <p>1 benefit. There are no substations that benefit people 2 in Union County or other nearby counties. And when this 3 guy finally moves out, he leaves a big swath through 4 your landscape with a permanent buzz overhead. And he 5 says, Oh, by the way, there will probably be more of us 6 coming. Uninvited, unwanted, offering us no benefit. 7 These are significant and permanent impacts. 8 I object, especially knowing that this whole thing could 9 have gone through uninhabited BLM land. 10 Thank you. I will submit details. 11 HEARING OFFICER WEBSTER: Following Mr. Dill, 12 we will hear from Brian Kelly. 13 MR. DWIGHT DILL: Dwight Dill, I live at 7077 14 Aquarius Way in La Grande. 15 You spoke a lot this evening about raising our 16 issues with sufficient specificity. I will be 17 submitting written comments at a later date. I will be 18 sufficiently specific. I think my comments tonight are 19 probably more emotional. 20 I'd like speak to my concern regarding the 21 environmental and visual impact of the B2H towers since 22 they were proposed to be sited on the southern edge of 23 La Grande near Morgan Lake. I have heard many 24 individuals refer to Union County as a "hidden gem" in 25 Oregon. We have an incredibly beautiful valley with</p>	<p style="text-align: right;">Page 61</p> <p>1 I am the restoration director with the Greater 2 Hells Canyon Council. We are a conservation 3 organization based right here in La Grande. We have 4 been in existence for 52 years located in northeast 5 Oregon. 6 One reason I mentioned that we have been 7 around for 52 years is we started to prevent dam 8 building in Hells Canyon. The reason I bring that up 9 tonight is because when I read through the justification 10 for this power line, it's eerily reminiscent of the 11 justification to build the dams in Hells Canyon. As you 12 may know, we have three existing dams in Hells Canyon, 13 but there was a proposal in the late '60s to construct 14 more dams that would block up the Salmon River coming 15 out of central Idaho and the Imnaha River coming out of 16 the heart of the Wallowa Mountains. 17 When they constructed the original dams, one 18 day in 1958, 4,000 salmon came to the construction site 19 and promptly died. In my book, that constitutes crime 20 against nature. And we, when I say "we," the people who 21 came before me, successfully prevented those dams from 22 being built and prevented a crime against nature. 23 We have learned a lot. We have developed a 24 lot of technology in the last 52 years, and we can do 25 better than constructing this power line. When I was</p>

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.

Please don't industrialize the country?

Daniel L Kelly
Signature

Daniel L Kelly
Printed Name

Mailing Address: 61062 Stackland Rd
Cove, OR 97824

Maureen Kelly
61062 Stackland Rd
Cove, OR 97824

RECEIVED
AUG 21 2019
Department of Energy

Kellen Tardæwether, Senior Staff Analyst
Oregon Department of Energy
550 Capitol St NE
Salem, OR
97301

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Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available. ?

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within 1/4 mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk. /

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Too many unanswered questions!!

Sincerely,

Maureen Kelly

Name: Maureen Kelly

Address: 61062 Stackland Rd
Cove, OR 97824

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT PROPOSED ORDER

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) which states that Exhibit X must include information about noise generated by construction and operation of the Project within ½ mile of the site boundary. The site boundary means "the perimeter of the site of a proposed energy facility, it's related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant" (OAR 345-001-0010(55)).

1. The applicant lists the areas which are included in the site boundary in Exhibit F, Page F-2, however, they failed to include noise modeling or include all the receptors within the ½ mile area beyond the entire site perimeter.
2. The applicant failed to do noise modeling for all noise sensitive property as they did not include churches, schools, libraries, or hospitals as is required by the definition in OAR 340-035-0015(38).
3. The applicant also failed to include the noise identified in OAR 340-035-0035(1)(b)(B)(ii) as not being exempt from the ambient statistical noise level indirectly caused by or attributable to that source including all its related activities. This section states, "Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The application is not complete prior to the applicant finishing Exhibit X to include all sources required by this rule as

well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

No Proposed Order can be issued until the developer has shown that they meet the requirements at the time a site certificate is issued. OAR 345-015-0190(5) allows the Department to find the application is complete when the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. While not all information required by OAR 345-021-0000 and 0010 must be submitted, there must be information adequate to show they meet the requirements or will meet them by implementing the conditions contained in the site certificate. The draft site certificate does not assure that the noise standard will not be exceeded, and the developer has not provided noise modeling or included modeling for all required sources of noise to establish the ambient statistical noise level of the development for all NSR's. Missing information includes: 1. Identification of all noise sensitive receptors within ½ mile of the entire site boundary; 2. Identification and notice to the owners of all noise sensitive properties; and 3. Modeling which includes Items (5)(b) - (f), (j), and (k) which cannot be excluded from the ambient noise measurement.

Sincerely,



Signature

Printed Name: Maureen K Kelly

Mailing Address: 61062 Stackland Rd
Cove, OR 97824

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN
THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name: Maureen K Kelly
Mailing Address: 61062 Stackland Rd
Cove OR 97824

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - Drill site 95/3 and 95/4 on unstable and steep slopes
345-022-0020

(c) ...The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing


95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*”

presenting design and construction challenges." IPCs stated original intention to the EFSC was the following: "Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable. 

The area surrounding the drill site 95/3 and 95/4 is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

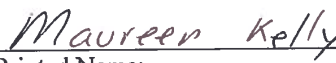
Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission "facility." While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.!!

I appreciate your consideration and your attention to this matter.

Sincerely,


Signature


Printed Name:

Mailing Address: 41062 Stackland Rd
Cove OR 97824

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Union County, Oregon, Union County Emergency Operations Plan – Hazard Analysis. Updated – 6/30/2016.

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties. !!??

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth. ← !

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate. !!

Maureen Kelly
Signature

Maureen Kelly
Printed Name

Mailing Address: 61062 Stackland Rd
Cove, OR 97824

August 21, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

RECEIVED

AUG 23 2019

DEPARTMENT OF ENERGY

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

Dear Chair Beyeler and Members of the Council:

I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project, and I have three concerns to raise.

Cultural Considerations

Firstly, I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are, and I do too. OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day. OCTA is mentioned numerous times in Exhibit S and the Historic Properties Management Plan and Programmatic Agreement. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete. Considering the points above, Idaho Power does not comply with the state standards for cultural resources or scenic resources¹.

Insufficient and Inaccurate Information about Morgan Lake

Secondly, Morgan Lake Park, analyzed as part of the Morgan Lake Alternative² and Summary of Impacts³, inaccurately describes features of the park itself and severely underestimates the permanent impact of development on this unique city park.⁴ Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities as per OAR 345-021-0010(1)(t)(A).⁵ Inaccuracies comprise of the following:

Page 62 (T-57) refers to "extensive work in the siting study of the Morgan Lake Alternative." That is doubtful because of the host of inaccurate information included in the study. Specific examples of unsupported conclusions include the following:

¹ OAR 354-022-0090, or 345-022-0080.

² Attachment T-3, Table T-2, p. T-3-2; Table T-3-1, p. T-13

³ pp. T-27-28, 43, (T-4-51-56)

⁴ See OAR 345-021-0010 (1) (T) (A) (B) (D) & OAR 345-022-0100.

⁵ Attachment T-3, Table T-3-1 (p. T-13)

- Page 145 (T-4-46): Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks. Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300' of Morgan Lake; it covers 27 acres. Twin Lake is undeveloped, a wildlife and bird sanctuary, home to nesting bald eagles. In their application, Idaho Power omits any references to Twin Lake.
- Page 156, (T-4-6): This is claimed to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch area is Morgan Lake Park. That's wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204-acre park are not indicated. Obviously, it's difficult to believe "extensive work on this siting study" ever occurred.
- Page 145 (T-4-46): Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." This is an unsupported claim.
- Page 146 (T-4-47): "The landscape character is natural appearing. Scenic integrity is high as the human developments are harmonious with the landscape." This is an unsupported claim.
- Page 49 (T-44): "Vegetation will block views of the towers from most locations in the park." In reality, one tower would dominate the entrance to the park, all 130' in plain view. Within the Park, the trees bordering the lake are no more than 80' high. 130' transmission towers will rise more than 50' above those trees, dominating the current landscape. Idaho Power does not provide a graphic representation of Morgan Lake Park, with the accurate height of existing trees, and elevation of towers above the trees. It simply concludes that the inescapable sight of 500 kV transmission lines and towers around a natural lake setting will have "no significant impact" on Morgan Lake Park. This is the park whose baseline "should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users" [because 50 years ago, no one ever imagined anything larger than a human being, might ever intrude] ...

Environmental Concerns

Lastly, the developer did not do current surveys for wildlife to provide the necessary evidence to show he was compliant with OAR 345-022- 0060, but also did not use easily accessible studies completed by and for ODFW during the compilation of information for issuing a site certificate. The nest surveys completed for the Antelope Ridge Wind development in Union County, which was planned to be sited adjacent to this proposed transmission line found 75 different bird species nesting in the forested areas. The numbers of nesting birds were so high that the US Fish and Wildlife Service recommended no development in the forested areas. The Baseline Noise Surveys describe the route of the transmission line to be adjacent to the 230 KV line which is adjacent to the Elkhorn Wind Development. For this reason, the wildlife information and studies completed as a result of the Elkhorn and Antelope Ridge Wind Developments are relevant to and should be analyzed in terms of providing some baseline information to compare with current surveys. Recommendations and concerns documented in comments regarding these two developments are directly related to the area of impact of this transmission line.

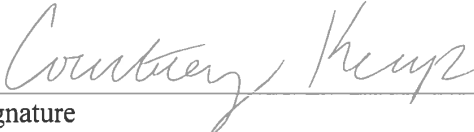
Additionally, the creation of a corridor through the middle of forest land is stated as a benefit to wildlife. There are multiple studies showing the negative impacts of creating corridors such as this as it provides opportunities for raptors and other predators to access prey. This should be widely known by the developers given the concerns they are required to address to attempt to minimize the use of transmission structures by raptors and other birds.

The entire section on Forested Land Analysis needs to be rewritten to accurately reflect the true impacts of this development including negative impacts to adjacent land and adjacent landowners such as impacts from the use of chemicals to control vegetation, erosion from development of the transmission line and roads, transmission lines are identified in multiple studies as a primary source of invasive weeds and it appears from this section that the developer plans to only spray for weeds once a year. That will assure that there will be multiple problems with invasive weeds as a result of this transmission line.

I am also concerned regarding the number of nests that will be destroyed by this transmission line as well as the lack of completed work indicating a commitment to identifying, addressing and mitigating for the wildlife impacts this development will have. The area mentioned above, in Union County, is known to serve as an important location for federally protected migratory birds. While the Oregon Department of Energy can legally refuse to address federally protected species under the threatened and endangered species rules, they are required to address them in the habitat mitigation rules. The developer has made literally no effort to identify and protect federally protected species under OAR 345-022-0060 or 0070. This is not an optional activity according to the opinion received from the Oregon Legislative Council.

Recommendation

I urge the Commission to deny this application for a site certificate until each comment submitted and sent to the Commission by August 22 has been thoroughly analyzed, and Idaho Power has provided credible evidence to support each of its conclusions of "no significant impact."


Signature

Name: Courtney Kemp

Mailing Address: 62361 Lettel Rd
La Grande, OR 97850

Phone Number: (541) 910-0259

E-mail: jkempcourtney@gmail.com

Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,

Victoria Kerr

Name: Victoria Kerr

Address: 94 3rd St.

La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

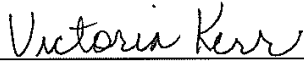
Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: Victoria Kerr

Address: 94 3rd St.
La Grande, OR. 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

**APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN
THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT**

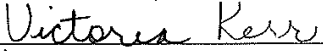
Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name: Victoria Kerr
Mailing Address: 94 3rd St.
La Grande, OR 97850

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - **Drill site 95/3 and 95/4 on unstable and steep slopes**
345-022-0020

(c) ...*The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...*

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*”

presenting design and construction challenges.” IPCs stated original intention to the EFSC was the following: “Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

The area surrounding the drill site **95/3 and 95/4** is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission “facility.” While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,

Victoria Kerr Victoria Kerr
Signature Printed Name:

Mailing Address: 94 3rd St.
La Grande, OR 97850

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Union County, Oregon, Union County Emergency Operations Plan – Hazard Analysis. Updated – 6/30/2016.

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT PROPOSED ORDER

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) which states that Exhibit X must include information about noise generated by construction and operation of the Project within ½ mile of the site boundary. The site boundary means “the perimeter of the site of a proposed energy facility, it’s related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant” (OAR 345-001-0010(55)).

1. The applicant lists the areas which are included in the site boundary in Exhibit F, Page F-2, however, they failed to include noise modeling or include all the receptors within the ½ mile area beyond the entire site perimeter.
2. The applicant failed to do noise modeling for all noise sensitive property as they did not include churches, schools, libraries, or hospitals as is required by the definition in OAR 340-035-0015(38).
3. The applicant also failed to include the noise identified in OAR 340-035-0035(1)(b)(B)(ii) as not being exempt from the ambient statistical noise level indirectly caused by or attributable to that source including all its related activities. This section states, “Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.” The application is not complete prior to the applicant finishing Exhibit X to include all sources required by this rule as

well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

No Proposed Order can be issued until the developer has shown that they meet the requirements at the time a site certificate is issued. OAR 345-015-0190(5) allows the Department to find the application is complete when the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. While not all information required by OAR 345-021-0000 and 0010 must be submitted, there must be information adequate to show they meet the requirements or will meet them by implementing the conditions contained in the site certificate. The draft site certificate does not assure that the noise standard will not be exceeded, and the developer has not provided noise modeling or included modeling for all required sources of noise to establish the ambient statistical noise level of the development for all NSR's. Missing information includes: 1. Identification of all noise sensitive receptors within ½ mile of the entire site boundary; 2. Identification and notice to the owners of all noise sensitive properties; and 3. Modeling which includes Items (5)(b) - (f), (j), and (k) which cannot be excluded from the ambient noise measurement.

Sincerely,

Victoria Kerr

Signature

Printed Name: Victoria Kerr

Mailing Address: 94 3rd St.
La Grande, OR 97850

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

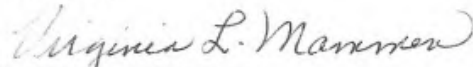
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

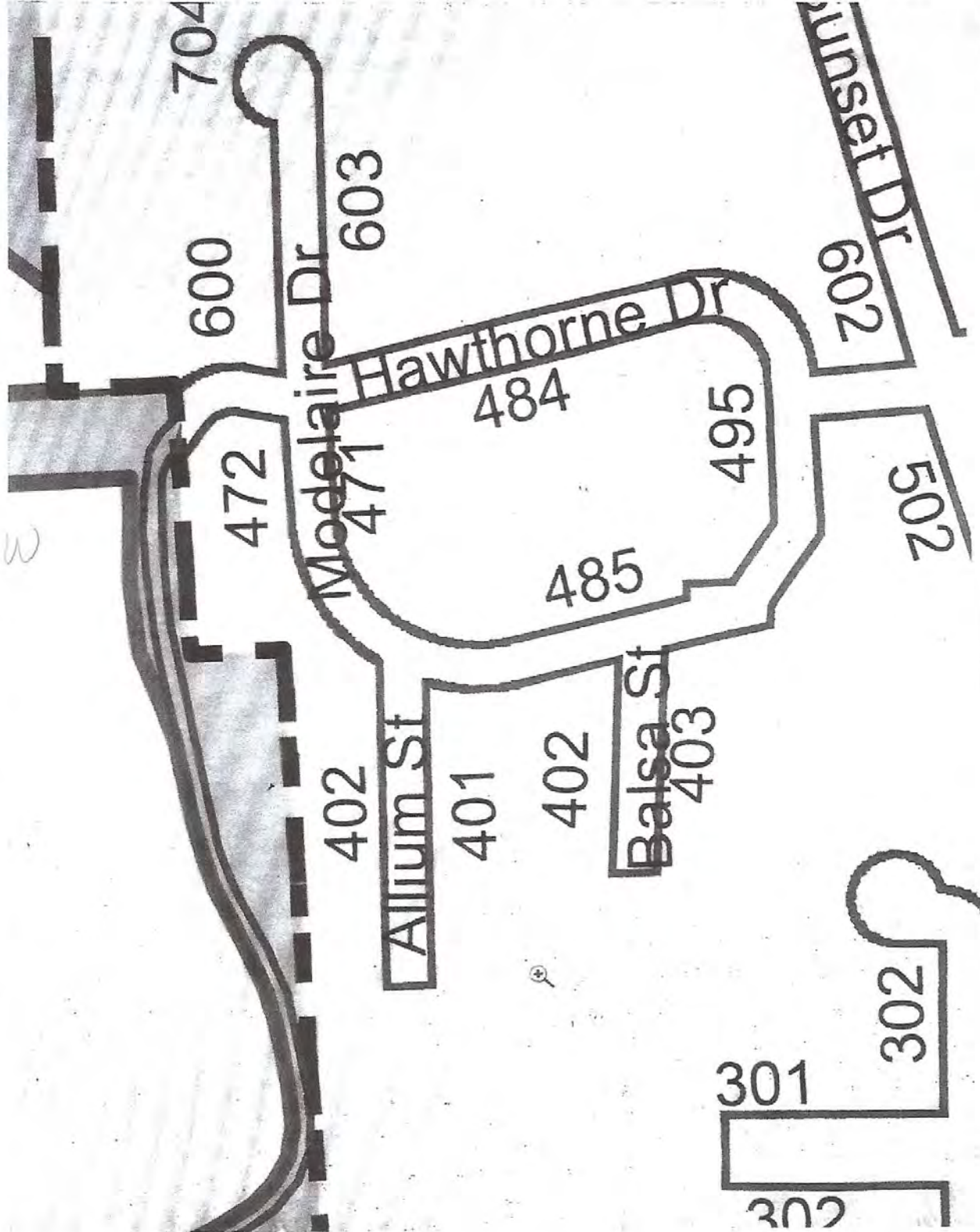


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

7/25/2019

Gmail - Modelaire Roadway Specifications

Exhibit 6



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



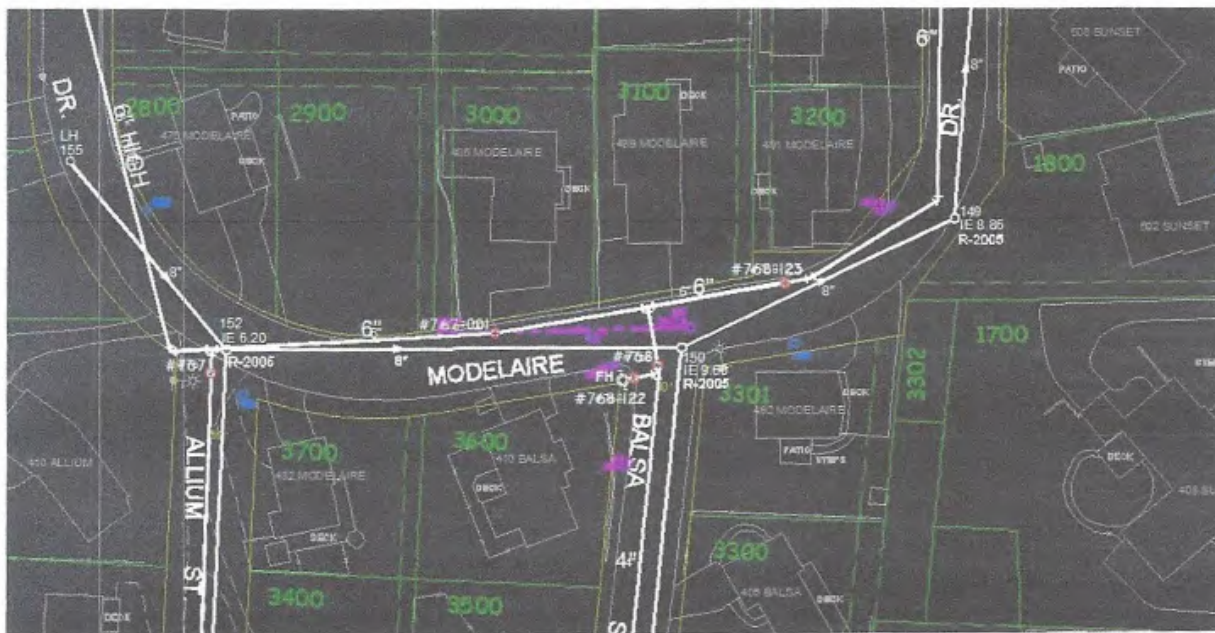
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

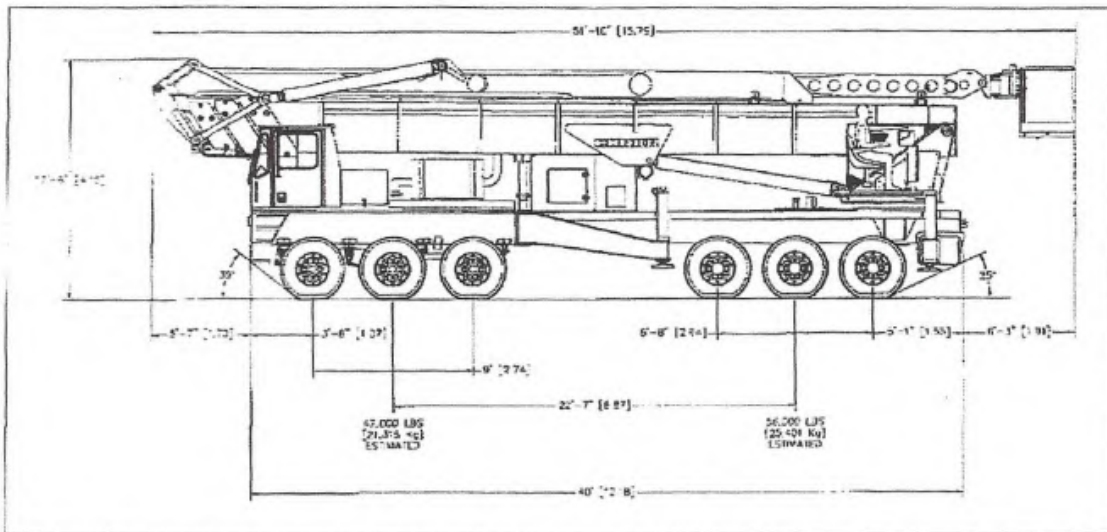


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Transportation and Traffic Plan

Boardman to Hemingway Transmission Line Project

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

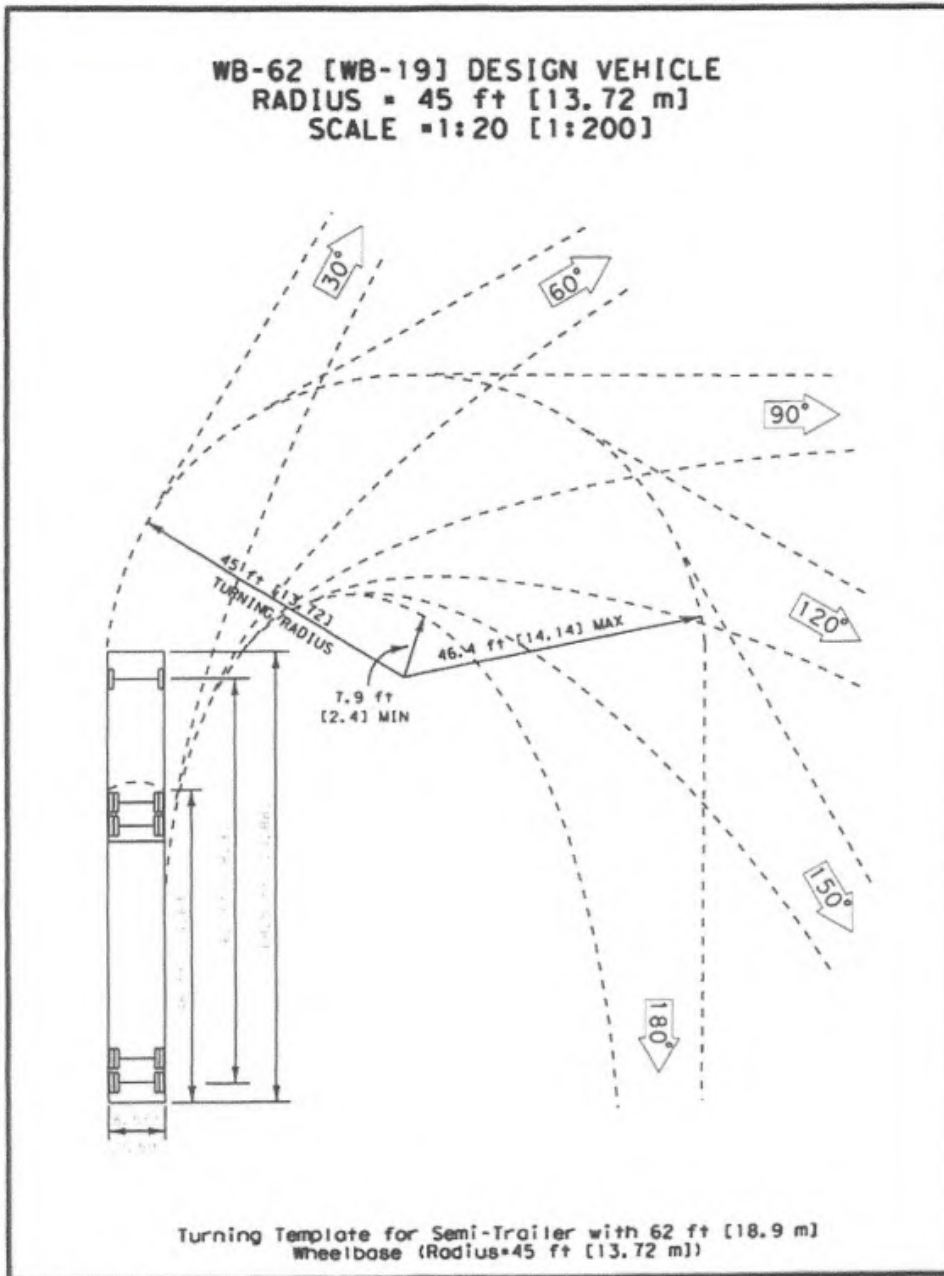


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

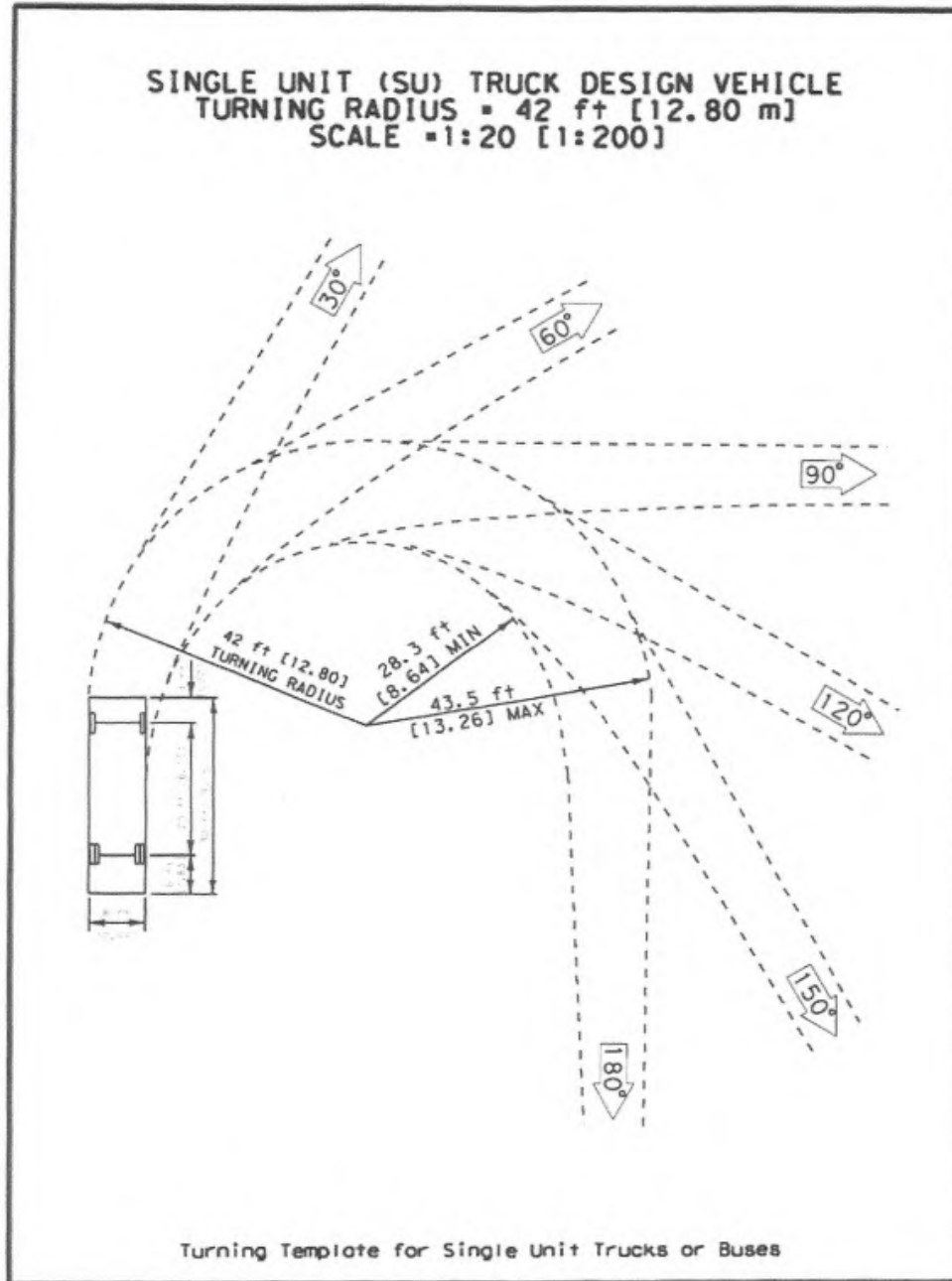


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

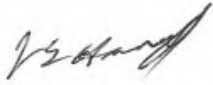
Section 17. TRUCK ROUTES

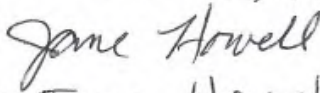
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

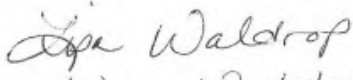
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

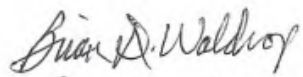
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

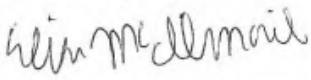
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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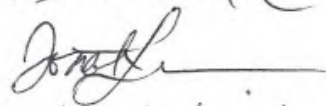

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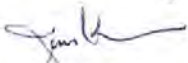
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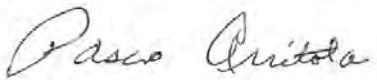
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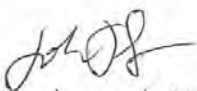
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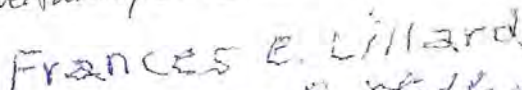
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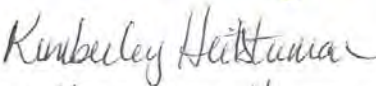
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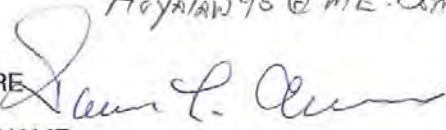
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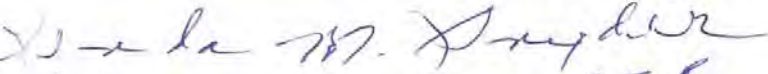
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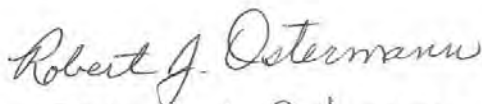
SIGNATURE 
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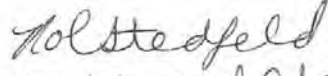
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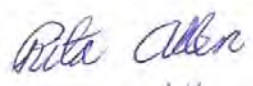
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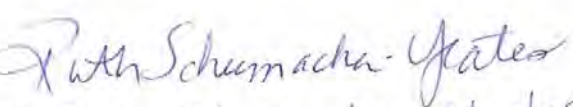
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PRINTED NAME Robin J. Ostermann
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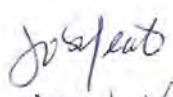
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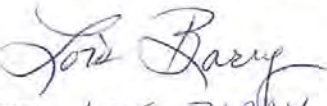
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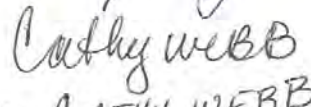
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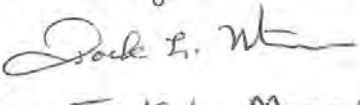
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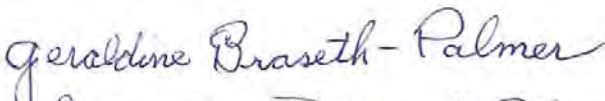

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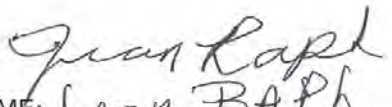
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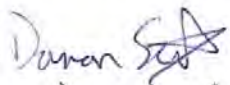
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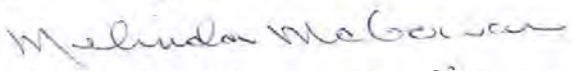
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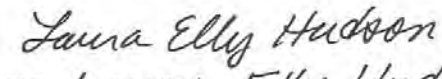
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PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL r1wd1910@gmail.com

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande, OR 97850
EMAIL acavinat@eou.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR
EMAIL joehorst@eoni.com

SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97 W Hawthorne Dr, LaGrande, Or. 97850
EMAIL asherei@frontier.com

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 Modelaire Dr. La Grande, OR 97850
EMAIL hnull@comi.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street LaGrande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 2009 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL MERLECOMFORT@GMAIL.COM

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL r.maille@icloud.com

SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C*
ADDRESS 1511 W Ave LG
EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Belketer Ln - La Grande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
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PRINTED NAME
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Robert Kleng <rkleng@eou.edu>
Sent: Sunday, August 18, 2019 2:43 PM
To: B2H DPOComments * ODOE
Subject: [Fortimail Spam Detected] please consider B2H alternatives

Please see attached:



August 15, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

I live on SUNset Drive on the way to MORGan Lake Road. At least once a week for the past 40 years, almost daily in the summer, I have walked the east side trail at Morgan Lake. I know the park well, and I especially cherish the absolute silence of this secluded natural area. During the past 40 years, the tranquility of the park has not changed.

I have studied DPO Attachment X-4, pp. 3/5 & 4/5. From my understanding of this attachment, every location in the Morgan Lake area which would be crossed by the B2H Morgan Lake Alternate Route was monitored with the same noise sensitive receptor (NSR) at milepost 11. The map below from Exhibit X, Attachment X-6 shows the skewed and poor modeling done for noise in Union County. This single NSR would provide exactly -- and unrealistically -- the same reading for the Husky Truck Stop, where heavy freight trucks from adjacent I-84 stop for gas and park for the night with diesel engines rumbling, and Morgan Lake Park, several miles to the west at the top of a relatively isolated two lane county road.

At Morgan Lake Park, the camp host closes the gate each night at 10:00 to ensure quiet. Visitors often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, no generators or shooting is allowed, and no motorized craft are permitted on the lake. Even when the campground is full, it's possible to picnic, fish, hike or camp while enjoying the absolute silence of the surroundings. The Morgan Lake Park Recreational and Development Plan even cautions against loud voices that might disturb park visitors:

2. Breaching the public Peace. No person in Morgan Lake Park shall engage in abusive, insulting ... language or engage in any disorderly conduct or behavior tending to breach the public peace. Park visitors shall conduct themselves in a quiet and peaceful manner consistent with the natural atmosphere in which the park is set. (25/33)

I am profoundly concerned that the applicant has failed to include noise monitoring at Morgan Lake Park campground, a noise sensitive property within ½ mile of the development as required by OAR-340-035-0015(38). Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries."

Morgan Lake Park, an overnight campground, is unquestionably a place where people expect to sleep, and furthermore, to sleep undisturbed. Eight towers supporting buzzing, popping, snapping transmission lines will circle the campground; the closest being .32 and .38 miles; the furthest one mile. I see no opportunity for mitigation in this case.

Division 22

GENERAL STANDARDS FOR SITING FACILITIES

Energy Facility Siting Council - Chapter 345

345-022-0100

Recreation

(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities in the analysis area as described in the project order. The Council shall consider the following factors in judging the importance of a recreational opportunity:

(a) Any special designation or management of the location:

See the Morgan Lake Recreational Use and Development Plan (above), and ASC p. 145 (T-4-46): Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users."

(b) The degree of demand:

From the City of La Grande's current web site: Morgan Lake: Atop a mountain just a few minutes' driving time from the heart of the city, Morgan Lake offers a quiet, motor-free respite from daily cares, with camping, fishing and hiking opportunities. ... Morgan Lake is located just a few miles outside of La Grande and provides the citizens of Union County an inexpensive, easily accessible area for a broad range of outdoor recreational activities, including fishing, camping and nature hikes.

City records show that in summer, an average of 200 vehicles use the Morgan Lake Road daily. Camping has become so popular that new campsites were added in 2017 (now total of 12) and the overnight limit decreased from 7 nights to 3 nights. Campers are often turned away.

(c) Outstanding or unusual qualities:

c) A free 204 acre park with two natural lakes, located at the top of the hills within a 10-15 minute drive of 13,000 city residents is definitely unusual. Because it is often 10 degrees cooler than the town below, it is a welcome respite from summer heat.

(d) Availability or rareness:

See (c) above, and "Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities" per OAR 345-021-0010(1)(t)(A) Attachment T-3, Table T-3-1 (p. T-13).

(e) Irreplaceability or irretrievability of the opportunity.

Applicant rates Morgan Lake Park as “somewhat irreplaceable,” a curious designation. “Irreplaceable” is an absolute: synonyms are “unique, unrepeatable, incomparable, unparalleled, priceless, invaluable.” Irreplaceability, like pregnancy, is either/or, not “somewhat.” There is no question that Morgan Lake Park is irreplaceable.

Despite all of the information listed above which clearly indicates that Morgan Lake Park is an “important recreational opportunity,” applicant’s conclusion is that the “impact on recreation” of multiple towers supporting buzzing, popping, snapping transmission lines, some within .3 miles of Morgan Lake Park’s overnight camping area, will be “less than significant.” Commission should not allow applicant to leap to spurious self-serving conclusions when the preponderance of evidence indicates the contrary.

When organized La Grande opposition made applicant’s proposed Mill Creek Route seem untenable, applicant offered the city of La Grande \$100,000 mitigation if they would support the Morgan Lake Alternate Route. At a La Grande City Council meeting, the Park Department Director, Stu Spence, was asked what he could use that money for. He could only suggest “perhaps an additional restroom or more porta potties.” Clearly this is a park that does not need mitigation for development, quite the contrary. It should be protected from intrusions. Development, as the park plan indicates, should be minimal.

Mitigation for an industrial intrusion into the silence of a natural park setting is not possible. To preserve this rare and beautiful natural recreational opportunity, it is essential that EFSC deny approval of B2H construction on the Morgan Lake Alternate Route. This alternate route was proposed in case the Mill Creek Route, which poses many serious potential problems as well – including geologic and fire hazards, unacceptable impacts on local residences, the Oregon Trail, and natural resources among many others – was not approved.

The Commission should not be constrained by the false choice of applicant’s chosen routes. In the unlikely event that the B2H is needed, the BLM Environmentally Preferred Route would avoid virtually all of the impacts of the Mill Creek and Morgan Lake routes.

I urge the Commission to deny both of applicant’s routes until, at a minimum, there is a Supplementary Environmental Impact Study (SEIS) of applicant’s proposed routes.

—
Robert Kleng

304 Sunset Drive
La Grande OR 97850

TARDAEWETHER Kellen * ODOE

From: B2H DPOComments * ODOE
Sent: Tuesday, July 9, 2019 3:14 PM
To: 'Midge.A.Kline@andeavor.com'
Subject: RE: Boardman to Hemingway Public Hearings

Hello Midge,

The notice is for comments on the draft proposed order (DPO) and application for site certificate for the facility proposed by Idaho Power. The public hearings were an opportunity for members of the public and other agencies to provide testimony to Energy Facility Siting Council members. However, the comment period on the DPO is still open for the Department to receive written comments on the record for the proposed facility.

Written comments may be submitted prior to August 22, 2019 at 5 p.m. by hand-delivery, email, mail, or fax to the hearing officer, in care of:

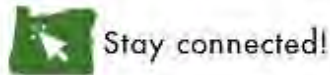
Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR 97301
Fax: 503-378-6457
B2H.DPOComments@Oregon.gov

Hope this helps,

Kellen



Kellen Tardaewether
Senior Siting Analyst
550 Capitol St. NE Salem, OR 97301
P: 503-373-0214
C: 503-586-6651
P (In Oregon): 800-221-8035



From: Kline, Midge <Midge.A.Kline@andeavor.com>
Sent: Tuesday, July 9, 2019 1:45 PM
To: B2H DPOComments * ODOE <B2H.DPOComments@oregon.gov>
Subject: Boardman to Hemingway Public Hearings

Mr. Tardaewether,

Andeavor operate a petroleum pipeline system that begins at our refinery in Salt Lake City, Utah runs through Idaho, Oregon and end ends in Spokane, WA. We received notice about the upcoming public hearing for the Draft Proposed Order for the Boardman to Hemingway Transmission Line Project. It appears there will be areas that the project will cross over the pipeline and/or the pipeline right of way. Of course we would like to review and provide comments on the design and construction phases of the project to ensure optimal safety of the pipeline. However, if I understand correctly, this round of public hearings is not for that purpose. Please verify.

Thank you--

Midge Kline, SR/WA, R/W-NAC
Adv Right-of-Way Specialist



Northwest Products System
201 N. Phillippi Street
Boise, Idaho 83706
O: 208-373-2141 C: 208-869-9429
Midge.A.Kline@andeavor.com

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - **Drill site 95/3 and 95/4 on unstable and steep slopes**
345-022-0020

(c) ...*The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...*

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*

presenting design and construction challenges.” IPCs stated original intention to the EFSC was the following: “Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

The area surrounding the drill site **95/3 and 95/4** is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission “facility.” While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,



Signature

Charles Koehler

Printed Name:

Mailing Address:

1502 Z Ave
La Grande, OR 97850

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

August 10, 2019

Energy Facilities Siting Council
Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Vial EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

Regarding the Boardman to Hemingway Transmission Project, the monitoring of noise to establish baseline noise levels failed to comply with the requirements of OAR 340-035-0035(3)(b). This rule establishes the location and procedure for completing sound measurements as listed in the Sound Measurement Procedures Manual 1. The location is specifically described as the further point from the noise source between a point 25 feet toward the noise source from the noise sensitive building or the point on the property line nearest the noise source.

Idaho Power ignored the specific procedural requirements for establishing a baseline noise level in several ways:

1. They placed measuring points “representative of the house and yard accommodations.” Measuring points were placed “in similar surroundings experiencing the same weather and acoustic conditions of where a resident was expected to spend the majority of time when outdoors,” or they were placed to accommodate the homeowner’s request. (See 3.2, Page 7 of Attachment X-2, Baseline Sound Survey) The procedure for doing noise monitoring to establish baseline very specifically defines where the monitoring equipment is to be placed in relation to the noise sensitive property. Note that on Page 549, line 16 through 24 of the Draft Proposed Order states that the monitoring positions were 25 feet toward the source. This is not what the developer says. In fact, by changing the measurement point or using measurements from one residence to assume sound level at others makes all the measurements invalid that was not performed at the stated location for each residence. On page 7 of the Attachment X-3, Supplemental Baseline Sound Survey for the Tub Mountain, Burnt River, and East of Bombing Range Road Alternate Corridors, the developer states, “MPs were placed in similar surroundings experiencing the same weather and acoustic conditions to where a resident was expected to spend the majority of time when outdoors. However, some property owners voiced opinions and preferences on the exact locations of the MP on their properties.” No reliable results can be obtained when the individual(s) doing the monitoring do not adhere to the strict protocol used to complete the monitoring.
2. When modeling results showed a “potential for increasing sound levels by 10 dBA or less,” the developer assumed compliance with the ambient degradation standard and did not complete testing to determine baseline sound levels. (Page 5, Line 24 of Attachment X-2, Baseline Sound Survey) This did not provide for any margin of error as any level over 10 dBA would be an exceedance of the standard. The developer failed to apply a reasonable margin of error, which would have resulted in doing measurements for any residence predicted to have an increased sound level of 8 dBA to allow for 95% reliability. See attachment “Uncertainty of L_{DEN} Calculation for corona noise from Ultra High Voltage power lines using reference methods” by T. Wszolek, AGH University of Science and Technology, Department of Mechanics and Vibroacoustics. September 30, 2006.

3. The practice of using a baseline sound measurement at a single monitoring point to represent a group of nearby noise sensitive properties is unacceptable. The developer stated that "due to the large number of NSRs identified within the analysis area, it was not feasible to conduct baseline monitoring at every individual noise sensitive property." (Page 5, Line 36, Attachment X-2, Baseline Sound Survey.) The noise rules do not require noise monitoring. They do state the methods that are to be used to establish baseline noise levels in the event the developer chooses to do actual noise measurements. The developer had the option and could have taken it to use the standard assumed 26 dBA for any noise sensitive property they were not able to monitor per the prescribed methods for any reason.
4. The only monitoring results which should have been used to establish a baseline noise level other than the standard should have been the 22 measuring points which performed during the entire monitoring period, assuming they were placed at a location as described in OAR 340-035-0035(3)(b). Locations, where baseline modeling was not completed per the DEQ protocol, need to use the assumed baseline sound measurement. Instead, the developer used the measurements from one residence to establish what they thought it would be at another; they averaged the results from MP 13 and MP 16 to guess at the measurement at MO 15. These MP's were located roughly 5 miles in different directions from MP 13 and MP 16. See description on page 8, lines 17 through 26, Attachment X-2, Baseline Sound Survey, for an example of the shoddy methods used to complete the monitoring, which clearly would not hold up under peer review.
5. While the developer makes several references to the methodology used in the Big Eddy Knight transmission line EIS, the final outcome regarding noise was that the developer would not be allowed to exceed the noise standard.

Idaho Power failed to follow the methodology for establishing a baseline noise level required by OAR 340-035-0035 or use the assumed baseline noise level resulting in the establishment of flawed baseline noise levels. None of the results of the noise modeling can be assumed to be accurate as a result. All material needs to be corrected and resubmitted.

No site certificate can be issued due to the lack of compliance with the noise monitoring protocol.

Sincerely,



Signature

Printed Name: Charles Koehler

Mailing Address:

1502 Z Ave
La Grande, OR 97850

Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

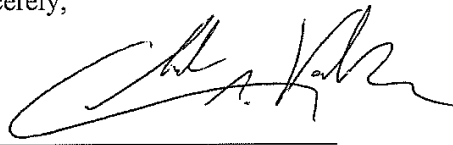
Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,



Name: Charles Koehler

Address: 1502 Z. Ave
La Grande, OR 97850

August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

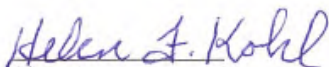
I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**



Signature

Printed name: HELEN F. Kohl

Mailing address: 1902 3rd Street 103
Salem, Or, 97850

Email address:

phone number: (optional) 541-573-2959

ESTERSON Sarah * ODOE

From: Dave Komlosi <djkomlosi@gmail.com>
Sent: Thursday, August 22, 2019 4:37 PM
To: B2H DPOComments * ODOE
Subject: B2H Comment
Attachments: Komlosi_Comment_2019.docx

[Find attachment](#)

August 22, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
B2H.DPOComments@Oregon.gov

Subject: Idaho Power Amended Application for the Boardman to Hemingway Transmission Project dated 9/28/2018; Draft Proposed Order dated 5/22/2019

Dear Chair Beyeler and Members of the Council;

My comments concern Idaho Power's faulty and illegal "Noxious Weed Plan" (DPO Attachment P 1-5) as well as their failure to take into account in any way, the Oregon Conservation Strategy.

The Oregon Conservation Strategy <http://oregonconservationstrategy.org/overview/> "represents Oregon's first overarching state strategy for conserving fish and wildlife. It uses the best available science to create a broad vision and conceptual framework for long-term conservation of Oregon's native fish and wildlife, as well as various invertebrates, plants, and algae. The Conservation Strategy emphasizes proactively conserving declining species and habitats to reduce the possibility of future federal or state listings. It is not a regulatory document but instead presents issues, opportunities, and recommended voluntary actions that will improve the efficiency and effectiveness of conservation in Oregon."

Under the Oregon Conservation Strategy, IPC's B2H project is a Key Conservation Issue: "(KCI)s are large-scale conservation issues or threats that affect or potentially affect many species and habitats over large landscapes throughout the state."

Despite being a Key Conservation Issue, the Oregon Conservation Strategy and its Goals, are not mentioned in IPC's Application at all! Consider Land Use Planning Goal 1: *Manage land use changes to conserve farm, forest, and range lands, open spaces, natural or scenic recreation areas, and fish and wildlife habitats.* Neither the current Proposed Route nor Morgan Lake Alternative of IPC's Application to EFSC takes these into account! Even if we ignore the fact that the B2H Project likely is not needed at all, given lowered demand and improved technology of energy storage batteries—IPC intends to disregard the "Proposed Route" considered in the BLM/USFS Records of Decision. That "Proposed Route" was chosen by the agencies as being the least harmful to the greatest list of resources—yet IPC has abandoned that in favor of two other routes imminently MORE harmful and despised by MOST residents of Union County. Is Goal 1 being met when the B2H line goes less than 100 feet from Twin Lake, a gem of a wetland that deserves protection? Is Goal 1 being met when B2H goes through Rice Glass Hill property, proposed as a State Natural Area? Is Goal 1 being met when noxious weeds are spread by B2H through Union County's finest wet meadows and elk wintering habitat?

Another very obvious lack is IPC's failure to discuss Strategy Habitats, outlined in Oregon's Conservation Strategy: <http://oregonconservationstrategy.org/strategy-habitats/strategy-habitats-summary-by-ecoregion/>.

In Union County alone, the Strategy Habitats of Grasslands, Late Successional Mixed Conifer Forest, and Ponderosa Pine Woodlands would very obviously be impacted by B2H as proposed in the Application.

The Application also neglects to address Strategy Species under OCS *"The Conservation Strategy identifies 294 Strategy Species, which are Oregon's "Species of Greatest Conservation Need". Strategy Species are defined as having small or declining populations, are at-risk, and/or are of management concern. "This is completely unacceptable! How can an action set to devastate so many of Northeast Oregon's Strategy Habitats and Species not even respond to our State Conservation Strategy?"*

Moving on to invasives, IPC's "Noxious Weed Plan" is greatly lacking. As noted above, it is a threat to Oregon's native plant communities. Oregon's Conservation Strategy states *"Invasive non-native species can have many negative consequences throughout Oregon. Depending on the species and location, invasive plants can:*

- *affect food chain dynamics*
- *change habitat composition*
- *increase wildfire risk*
- *reduce productivity of commercial forestlands, farmlands, and rangelands*
- *modify soil chemistry*
- *accelerate soil erosion*
- *reduce water quality"*

Chapter 569 of Oregon law covers weeds. Oregon statute 569.180 (Noxious weeds as public nuisance policy) states, "In recognition of the imminent and continuous threat to natural resources...noxious weeds are declared to be a public nuisance and shall be detected, controlled and, where feasible, eradicated on all lands in this state."

Upon careful reading, "Noxious Weed Plan" breaks the law by exempting IPC from weed control after 5 years, denying responsibility for Class B and C Weed species (the vast majority of weeds), and holding IPC accountable for only the very limited area of ROW, despite the B2H project introducing and spreading weeds far and wide along a 300 mile stretch plus dozens of additional access roads and tensioning areas.

In summary, IPC's Application does not take into account the Oregon Conservation Strategy. The Application clearly is breaks Goal 1 of the Strategy in many ways and does not consider Strategy Habitats or Strategy Species. IPC's Noxious Weed Plan does not comply with Chapter 569 of Oregon law. I strongly urge you to deny IPC's Application. Our State Conservation Strategy and Goals and the integrity of our native plant habitats and rare plant occurrences cannot be sacrificed!

Sincerely,

Dave Komlosi
906 Penn Ave
La Grande OR 97850
djkomlosi@gmail.com



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Fuji Kreider

Mailing Address (mandatory) 603 66 Marvin Rd.

Phone Number (optional) (____) _____ Email Address (optional) _____

Today's Date: 6/26

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today. No

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony
(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

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1 You have heard many in eastern Oregon counties
2 speak to this personally what the effects would be on
3 them. For example, a tower being built where a house
4 currently stands. I grew up on a farm in the Red River
5 Valley of Minnesota, flatland with rich soil. In the
6 late '60s I had moved away by then. The freeway began
7 to be built in the area. It cut through my parents'
8 half section, leaving a 40-acre triangle on one side of
9 the freeway and the majority of acres in a triangle on
10 the other.
11 This ultimately resulted in a 4-mile drive
12 each way, often with farm equipment to get to the
13 smaller acreage, thus adding more time and cost, as well
14 as inconvenience of farming this smaller section. The
15 same applied to farming triangles; more costs, more
16 time, being much less efficient than farming a
17 rectangle.
18 In Minnesota we get rain; and, therefore, we
19 have deep and wide ditches. The freeway construction
20 screwed up the drainage system which wasn't fixed until
21 1996, when my mother had to pay \$90 an acre to have it
22 done. There was no governmental compensation for any of
23 these added expenses which exist still today.
24 From the time my parents knew their land was
25 going to be taken, until many years later, my mother was

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1 upset and often angry about it. And this, of course,
2 affected those around her. The inconvenience, the extra
3 costs, the constant noise, the pollution caused by the
4 diesel vehicles all contributed to this.
5 When Mom moved to town, my nephew moved to the
6 farm, and although he planted even more rows of trees
7 than what already existed in an attempt to block the
8 freeway noise, it bothered him and he eventually moved.
9 Yesterday I asked a local counselor if she was
10 seeing more people who were depressed or angry due to
11 this proposed B2H line. She said, Yes, whenever there
12 were additional stresses that caused people to feel
13 helpless, her business increased. It wasn't something
14 she wanted.
15 Our property is adjacent to the freeway near
16 Ladd Canyon. We look out on the foothills. I drive
17 Foothill home whenever possible. The beauty relaxes me
18 and is a type of medication. Should the power line be
19 constructed along there, and especially along the
20 Miracle Mile, the scenic value would be ruined.
21 These costs, emotional, personal hurt,
22 stress-related health issues, inconveniences, extra
23 work, immediate and ongoing expenses, as well as
24 long-term effects we can't yet know add up. They take a
25 toll on us, the citizens. Idaho Power will not be

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1 compensating for these costs, many of which cannot be
2 paid for with money.
3 Most landowners would also not have the
4 resources to sue for damages; farming and ranching,
5 usually not being lucrative operations.
6 I have heard the Grande Ronde Valley is the
7 largest circular valley in the US. Please help us keep
8 its natural beauty and not discard it with the ugly
9 monstrosities Idaho Power wants to erect in this very
10 scenic area. There are other options if indeed this
11 line has to be built at all.
12 There are strong reasons for building
13 microgrids or none at all, but that is a different
14 chapter.
15 With all the testimonies you have heard, you
16 must have a strong sense of the devastating impact this
17 power line would have on the natural lands and all the
18 critters, including humans, who would be affected should
19 it be built as Idaho Power wishes.
20 I conclude with these questions: Does Idaho
21 Power have the right to determine the negative impacts
22 on our environment and our personal lives? Do we the
23 people not matter? Please hear us.
24 And I also request that the deadline be
25 extended because summer is a very busy time for many

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1 people along this route. Thank you.
2 HEARING OFFICER WEBSTER: Thank you.
3 I have received an additional comment request
4 So we'll hear from Fuji Kreider.
5 MS. FUJI KREIDER: Good evening. Fuji
6 Kreider, 60366 Marvin Road, La Grande.
7 I really did not plan on continue speaking
8 tonight, but I didn't realize that you might be actually
9 contemplating extending the comment period. So I
10 thought, I have to talk about this.
11 Margaret mentions the stress and all that is
12 going on. It's been very intense. It isn't just within
13 our group and these hearings of late, it's been going on
14 for quite some time. But I wanted to focus on the
15 media, which is since last week you all heard everyone
16 speaking very passionately about what's going on. The
17 phone, emails, everything has been nonstop, over the
18 top. People are so confused about where even to find
19 the table of contents, how to navigate the draft
20 proposed order, the application, et cetera.
21 Back when you had the informational meetings
22 last November, I asked Kellen and the staff that were
23 there, How long will it be for the comment period?
24 Kellen said, How long do you need? I said, We need at
25 last 6 months. You guys have had way longer than that.

<p style="text-align: right;">Page 46</p> <p>1 And we are just citizens, we don't have a staff, 2 et cetera. 3 Everybody kind of chuckled, and then it was 4 more like, Well, we have to give you at least 30 days, 5 but probably 45, maybe even 60 if we are lucky. So I 6 got lucky and got 60 days. I'm telling you it's not 7 enough. We are really finding it difficult to navigate 8 not just the application and the DPO and your standards 9 and that crosswalk between those, but then also you have 10 errata sheets, you have attachments, attachments that 11 don't have page numbers. It goes on and on. 12 And it's really kind of crazy making. So I 13 would encourage you tonight, this is my main message, to 14 extend the comment period, if possible. 15 Like I said, we originally asked for 6 months 16 initially. We'll take whatever we can get. Irene just 17 proposed another 6 months -- I mean another month, 30 18 days. That at a minimum, that would be fantastic. But 19 even if you could take it to the fall, would be great 20 because of all the farmers and the people that all 21 summer are having difficulty engaging with this. 22 And then my second request, it's kind of 23 related to time frame, but it comes after the fact, and 24 that is that I understand after the comment period is 25 over, then the staff will go through comments and give</p>	<p style="text-align: right;">Page 48</p> <p>1 I also had not planned to speak tonight, but I 2 think there is one thing that hasn't been brought up 3 that I would like to bring up, and that is a 4 neighborhood. And that is my neighborhood that is being 5 considered as using the route for the staging and for 6 the transportation of equipment to the site that they 7 are planning to use. 8 This is a loop that goes from a main artery up 9 around the hill. It's strictly a residential area. 10 It's a narrow, rather steep road on both sides of the 11 loop, and at either end there is a short stub that would 12 take them either to -- at the bottom -- either to the 13 main artery or up to the site, which the stub on that 14 one right now is just a gravel road. I also live about 15 a block from the hospital. 16 Our neighborhood is a quiet neighborhood, and 17 I'm concerned about the beauty and I'm concerned about 18 all of the wild animals that we have in our yard, we do 19 live in the city, and the effect that it would have on 20 them. But I'm also very concerned about the people in 21 our neighborhood. 22 And here again, it's been mentioned, a lot of 23 people are just overwhelmed. Either they really don't 24 understand what is going to happen and they think 25 somebody else is going to take care of it, or they don't</p>
<p style="text-align: right;">Page 47</p> <p>1 you guys, EFSC Council, a summary. I'm not sure what 2 those things are called. And you would use something 3 like that at a Council meeting. 4 And my request is that you have that Council 5 meeting back over here on the east side. As a matter of 6 fact, would be best to put it in La Grande. One, 7 because you can tell by the attendance you are getting 8 at these other meetings that that is where you have the 9 most passion, the people do. Not you, but the people 10 do. But even moreover, it's halfway. So it's 2 hours 11 from La Grande to Boardman, 2 hours from La Grande to 12 Ontario. It's right in the middle of these five 13 counties. And I really encourage you to consider having 14 that public meeting right where the heart of this is. 15 So that is all I have to say for tonight. You 16 know you'll get my written comments eventually in 17 writing with the appropriate standards and specificity. 18 Thank you. 19 HEARING OFFICER WEBSTER: Thank you, 20 Ms. Kreider. 21 It looks like I have some additional comment 22 cards coming. 23 Let's hear from Virginia Mammen. 24 MS. VIRGINIA MAMMEN: I'm Virginia Mammen. I 25 live at 405 Balsa, La Grande, Oregon.</p>	<p style="text-align: right;">Page 49</p> <p>1 have any idea how to read and meet all of the standards 2 that are required for writing. But they are concerned. 3 And our loop, as I say, it has about 40 houses 4 on it. There are a lot of children. There are no 5 sidewalks. It's just a quiet neighborhood. We all know 6 each other. We look out for each other. There are 7 several blind curves the children go up and down the 8 road to go to school. They walk their dogs. A lot of 9 people walk the hill because it's a good exercise area. 10 So having large trucks -- and we understand 11 from one of the landowners that was contacted -- we were 12 not contacted, and yet we are very, very close to the 13 site entrance. He was contacted and told there might be 14 upwards to 150 or more trucks a day that might be coming 15 up that hill during the beginning and during the process 16 time. 17 We don't have very many cars on our street. 18 It's just the houses that are there that are using it. 19 And even 25 big trucks would make a big difference. But 20 if you go even -- in fact, having a moving van or a 21 truck for even one day causes some restriction of the 22 use of it because it makes it very definitely a one-way 23 kind of a -- you can't have a two-way street, you can't 24 pass very easily. 25 We have noticed, just my husband and I, we</p>

**Input on Draft Proposed Order for the Boardman to
Hemingway Transmission Line**

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<p>1 were coming along the main artery today that comes past 2 the hospital and then comes to the entrance to our loop, 3 and we were turning onto the main artery from another 4 street, and a very, very large dump truck was wanting to 5 turn onto the street we were turning off of. We had to 6 really get out of the way and move and go a different 7 direction so that truck could get to where it wanted to 8 go. 9 Then as we turned onto our street -- and I've 10 noticed this quite often. Turning onto it, you take up 11 a good part of the street to get around the corner, and 12 then you go a short distance and do the same thing 13 around another corner. And those are rather blind 14 corners that you are going around. Having dump trucks 15 going on the streets that are meant for just local 16 traffic is not going to be at all pleasant for any of 17 us. 18 And so the other business -- also knowing that 19 it's not going to be good for the hospital. We have a 20 helicopter that comes into our hospital, and it comes in 21 at various times. We are all pretty used to that, 22 except it does make a lot of noise and it does bother 23 some people more than others. If they are going to be 24 transporting by helicopter over our houses, this is 25 going to be just dreadful. We don't know really what's</p>	<p>1 (Recess taken.) 2 HEARING OFFICER WEBSTER: Let's reconvene, 3 it's 6 minutes after 6:00. The first order of business 4 is just to confirm that Council Member Mary Winters -- 5 is she still on the line? 6 COUNCILLOR WINTERS: Yes, I'm still on the 7 line. 8 HEARING OFFICER WEBSTER: All right. Great. 9 I think you'll want to participate in the decision that 10 Council has before it, the request Council has before 11 it. 12 Before we get to that though, does the Council 13 have any questions for the applicant tonight? 14 MS. TARDAEWETHER: It looks like we have 15 another comment. 16 HEARING OFFICER WEBSTER: I have received one 17 more comment card. So before you answer that question 18 and the other question that was presented to you 19 earlier, let's hear from Cynthia Harvey. 20 MS. CYNTHIA HARVEY: Hello. My name is 21 Cynthia Harvey. My residence address is 77647 North 22 Loop Road, Stanfield, Oregon. 23 In March of this year we purchased 1100 acres 24 up in the Meacham area of timberland. As of today we 25 have never received notice from the State of Oregon or</p>
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<p>1 going to happen. A lot of people say, Oh, they won't do 2 that. I'm at a point where I don't trust anybody unless 3 I see it in writing they won't do certain things. 4 And so this is why I wanted to speak to you. 5 I know this is not meeting your standards, but there are 6 some things that don't have a written standard. It's 7 just common decency and not being bullied by somebody 8 who wants to have something that you have and they take 9 it away from you, and that is our peace and quiet. 10 Thank you. 11 HEARING OFFICER WEBSTER: Thank you. 12 All right. Let me circle back. Is there 13 anybody on the phone that wants to give comment? Is 14 there anybody on the phone that would like to give 15 comment? 16 Hearing none, I am thinking that we'll take a 17 break. We'll take about 15 minutes or so, and then 18 we'll reconvene so that Council can consider the 19 request. And in the meantime if there is anybody who 20 hasn't filled out a comment card that wants to give a 21 comment, please do so on the break, and when we come 22 back and reconvene, we'll give you the opportunity to 23 comment. 24 It is 5:49 now, and let's plan on coming back 25 about 5 after 6:00.</p>	<p>1 Idaho Power about this project. We have gone online, 2 and according to the map, they want to put five towers 3 on us. So we would be impacted greatly. It would take 4 all our stands of timber, all our best water resources, 5 and basically just destroy our property. 6 So I am concerned that we have never received 7 any kind of notice. So I want that stated in the 8 record. 9 HEARING OFFICER WEBSTER: When did you 10 purchase the property? 11 MS. CYNTHIA HARVEY: March. 12 HEARING OFFICER WEBSTER: Of 2019? 13 MS. CYNTHIA HARVEY: This year. 14 HEARING OFFICER WEBSTER: Any other things you 15 wanted to bring up tonight, any other issues? 16 MS. CYNTHIA HARVEY: Well, we have a lot of 17 issues, but I think the main one is the lack of 18 notification. 19 HEARING OFFICER WEBSTER: Thank you. 20 Is there anybody else, any public comment? 21 Going once, going twice, for now. 22 Council, questions we have for the applicant? 23 VICE CHAIRMAN JENKINS: I do. 24 HEARING OFFICER WEBSTER: Let's bring up 25 Mr. Stokes then.</p>



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June 18-20 and June 26-27, 2019, 4:30-8 p.m.
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Name (mandatory) Fuji Kreider

Mailing Address (mandatory) 60366 Marvin Rd.
La Grande, OR

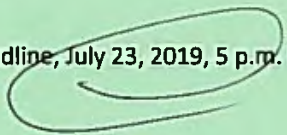
Phone Number (optional) () _____ Email Address (optional) _____

Today's Date: _____

Do you wish to make oral public testimony at this Hearing: Yes No

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Kellen Tardaewether, Senior Siting Analyst
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Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

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1 between here and La Grande? What do you think that's
2 going to look like out in that cow pasture? Are the
3 cows going to be happy? No. They aren't happy now when
4 it gets hot or it snows. I'm not happy when it gets hot
5 and it snows. There's a lot that needs to be said and
6 done here.

7 Now, Idaho could rectify this by putting in a
8 natural gas plant. It's expensive but they're close to
9 Wyoming, and there's lots of natural gas there. And
10 Wyoming is not that pretty of a state. I've been there
11 many times, I used to drive long haul from Boise to
12 Chicago twice a week. Lots of open area from Blackfoot
13 to Sinclair. They have the big towers, they have the
14 natural gas. There's a natural gas pipeline that runs
15 to the West Coast. Put it in, extend it.

16 Don't put the towers through this valley
17 because we're going to stop you. And I like to talk a
18 lot. I have nothing to lose. Shoot, I've been camping
19 for a day and look at this, I still look good.

20 So come on, really, we need to think about
21 this. We need to get together, inform the people,
22 there's got to be a solution. I know this needs to
23 happen. We need to get eastern Oregon bigger, we need
24 to help Idaho. I get that. But we cannot do it running
25 down 84 where everyone sees. We cannot do that.

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1 There's a big mountain up there, I know there's a
2 airstrip because I fly. Put it up there. Go over the
3 mountain. It's going to cost more.

4 But even though you're not going to start
5 building until 2023 when most of us will be gone or in a
6 home or not able to remember this meeting, it's going to
7 make a difference on the kids, and the kids that are
8 going to come and visit you in that retirement center.
9 Not in Salem, not in Washington, DC. But every rancher,
10 and I heard somebody saying, Oh, we're not going to get
11 the promises. You know, it's politics. Forget about
12 the promises, we all know how that worked out. So
13 that's off the board.

14 We're all going to get together, we're going
15 to be informed and we're not going to go on Facebook and
16 push "like" any more. We're going to get people to
17 these meetings. The '60s were great. We need to go
18 there.

19 Thank you.

20 HEARING OFFICER WEBSTER: Thank you.

21 MS. FUJI KREIDER: I'm Fuji Kreider, 60366
22 Marvin Road, La Grande. That's all you need; right?

23 HEARING OFFICER WEBSTER: Yes. If you would
24 spell your last name.

25 MS. FUJI KREIDER: K-r-e-i-d-e-r.

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1 HEARING OFFICER WEBSTER: Thank you.

2 MS. FUJI KREIDER: I was not planning on
3 speaking tonight but a couple things came up that I've
4 been hearing about and I just want to make a couple
5 comments. It won't even take the whole time I don't
6 think.

7 I am with the Stop B2H Coalition. I'm a board
8 member. We are not a NIMBY organization; we are
9 activists fighting the line entirely. I'm not talking
10 about moving the line; we do not want the line.

11 However, you will hear, as you heard tonight
12 and you'll hear all along the way, and all the public
13 comments will be directed towards your standards and
14 about the siting of the line, all the impacts that
15 you've heard tonight and more, so I won't get into that.

16 What I do want to just say is I related to the
17 cost and some of the issues that I've heard tonight
18 mentioned. Things are changing for Idaho Power.
19 Technology is changing radically and the costs are also
20 changing. I started in the 2015 OPUC docket. Since
21 that time I've attended every Idaho Power Integrated
22 Resource Planning meeting in Boise. I go every month;
23 anywhere from two to five of us attend those meetings
24 every month. We went through eight meetings and a
25 workshop in the 2017 IRP and the PUC docket. We've been

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1 to every meeting in the 2019 IRP. The docket will be
2 opened in the summer when OPC opens it up.

3 Much of what I -- well, generally a lot of
4 what I talk about with cost I will be referring to the
5 PUC on to protect the ratepayers. But I do want you to
6 know that this B2H line is not the only option. It is
7 not the only option for Idaho Power. And the options
8 keep changing. As technology keeps changing, they have
9 more and more options.

10 Also, the cost of things are going down. So
11 back in the 2017 IRP days, when we insisted put
12 batteries, put stored, put some alternative technologies
13 into your Integrated Resource Plan, it was like, Oh, no,
14 no, no, that's too far out. Ten, 20 years from now I'll
15 say, Well, it seems like it's coming awfully sooner than
16 that. Talk to the Idaho Power executives and stuff that
17 are in the room, Oh, I agree with you, Fuji, yes,
18 distributed generation and distribution is the way of
19 the future, but that's still 20 years out.

20 Well, next round IRP 2 years later, we're a
21 year and a half later, solar and batteries are in their
22 Integrated Resource Plan. They just signed on with
23 Jackpot Holdings, the cheapest solar in the country.
24 Things keep changing.

25 Now, when you hear tonight a number of things

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1 that people have talked about, the federal corridor, the
2 central Oregon road, go to the federal corridor. Why
3 don't you go that way, that's what Baker County has been
4 saying from the beginning. Idaho Power, No, that's a
5 hundred miles out of the way. That will cost too much.
6 Burying the line. Oh, can't bury the line, it
7 might cost as much as Chino Hills that went under an
8 interstate and shopping mall and a whole -- I mean,
9 okay, that's what they wanted to use.
10 Substations, dropping off some pops along the
11 way, some substations, the cost of that. All these
12 costs, why are they saying it's too expensive or we
13 can't do it? I'll tell you why. Because that changes
14 the cost of the B2H portfolio.
15 In the 2019 round, there were 24 portfolios to
16 beat Idaho Power's need. We won't even get into all
17 that stuff yet, we'll maybe talk about that tomorrow in
18 La Grande. But to meet their need now, this go-round in
19 2019, we listened to and they created in their computer
20 modeling 24 portfolios; 12 with B2H, 12 without B2H.
21 B2H portfolio is the cheapest portfolio.
22 If you added one of those things, the federal
23 corridor, the burying the line or some substations, B2H
24 is no longer the least-cost portfolio in Idaho Power's
25 toolbox.

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1 So we're not going to go away. We'll take
2 this to the PUCs in both states. We keep on, we keep
3 going. You'll hear more tomorrow, and all of our stuff
4 will be in writing of course by the deadline.
5 Thank you.
6 HEARING OFFICER WEBSTER: Thank you.
7 Is there a last call for anybody to give
8 comment before we have Mr. Stokes up? Is there anybody
9 on the phone that's listening in that would like to give
10 comment? Okay. Hearing none, we'll hear from
11 Mr. Stokes.
12 MR. MARK STOKES: Good evening. My name is
13 Mark Stokes. Address is 1221 West Idaho Street, Boise,
14 Idaho 83702. I'm an engineering project leader for
15 Idaho Power, and the project leader for the Boardman to
16 Hemingway project.
17 Here tonight, I was not going to make any
18 specific comments on everything that's been said this
19 evening but I did want to avail myself to answer any
20 questions that Council members may have.
21 HEARING OFFICER WEBSTER: Any questions,
22 Council, for Mr. Stokes?
23 CHAIRMAN BEYELER: No.
24 VICE CHAIRMAN JENKINS: I do have a question
25 for Mark.

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1 Mark, one of the issues that has been raised
2 is invasive weed spread and whether or not Idaho Power
3 is going to be submitting an invasive weed management
4 plan. I believe that was referred to in the
5 application. Can you talk a little bit about that.
6 MR. MARK STOKES: Yes, certainly, Vice
7 Chairman.
8 There's a lot of plans like the noxious weed
9 plan that were, we call them frameworks at this point,
10 that were developed as a part of the NEPA process,
11 working through that with BLM. And the intent all along
12 has been that when we get to the point where we have
13 more certainty on the route and other things associated
14 with the line, that we would then go back and flesh out
15 those plans, put all the details in. And it would be at
16 that point that we would expect to work through each of
17 the counties to make sure that the specific plans met
18 their needs.
19 So it's certainly in our plan to go out and do
20 that. And that will all happen here roughly a year and
21 a half, 2 years when we develop what's called the
22 construction POD, or plan of development, which is a
23 pretty sizable document that will include all of those
24 other plans. There will be things in there that address
25 section 106, cultural issues, fire prevention and

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1 protection plans. There's a lot of them. We can go
2 back and look at the list if we need to. But we
3 certainly do plan on addressing those.
4 VICE CHAIRMAN JENKINS: Thank you.
5 HEARING OFFICER WEBSTER: Any other questions?
6 Thank you.
7 What is going to happen on our end now is we,
8 those of us, the Council members and the DOE people and
9 me, we will be here until 8:00 or close to 8:00 in case
10 there's anybody that comes in that wants to provide
11 public testimony. But for now, it's 6:38 and we'll
12 recess and we will reconvene if somebody does join us
13 and want to give testimony.
14 So thank you everybody.
15 (Hearing recessed at 6:38 p.m.)
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Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Fuji Kreider

Mailing Address (mandatory) _____

Phone Number (optional) (____) _____ Email Address (optional) _____

Today's Date: _____

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony
(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

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1 a right, it's going to go east.
2 Now I hear that all these data centers who
3 were all in, all of us are in there, isn't that
4 pleasant? And may I say, the planning commission, the
5 Port of Morrow, they are going to regret the day that
6 they let these data centers come here. Some day they're
7 going to use all the water and all the power. And right
8 now there's no power to run the rest of them. I guess
9 there's two or three built. I don't know, I don't care.
10 And there's probably five more to go.
11 What is going on? Who allows this fiasco in
12 our backyard? So is the Idaho Power line going to feed
13 these? I don't know. I don't have the answers. Nobody
14 is willing to say anything. And you think, you think
15 that your elected officials are going to help us out
16 here. They wouldn't allow this to happen to us, have
17 somebody ruin our farms.
18 Then you find out, I read about Greg Smith the
19 other day, being the big buddy of the people of the Port
20 of Morrow. It's almost like he runs his own Clinton
21 Foundation. It's mind-boggling and unbelievable to me,
22 but he's obviously not going to help us out.
23 So I have nowhere to go. Nowhere. Nobody is
24 willing to listen. But all I know is Mark Stokes,
25 project guy, engineer, project leader, you're not coming

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1 through my farm. I won't allow it. Jeff Maffuccio, who
2 I have talked to I don't know how many times before,
3 facilities siting coordinator, you're not coming
4 through. I will not allow it.
5 And can you imagine 300 miles of pissed-off
6 people when this gets rolling, and I will hope that
7 there will be civil disobedience with this fiasco, that
8 will not allow it to be built. I pray every night and
9 all day that this line is not built. It has stolen my
10 joy. This goes on every day, the stress, the thought of
11 it.
12 It's like a bank foreclosure. You're waiting
13 on a bank foreclosure that goes on for 15 years. It has
14 stolen my joy. I'm not happy about it. I'm very angry.
15 And I will not allow it to be built on my farm, to ruin
16 my ranch, my family's ranch. It will not happen. I
17 won't allow it.
18 Thank you. And, no matter what happens, we
19 all have to look in the mirror every morning. Please do
20 not let this happen. Please do not vote and let this
21 happen. Thank you.
22 HEARING OFFICER WEBSTER: Thank you.
23 We have one more comment card. I don't know
24 if Council is going to have questions for -- we have two
25 more comment cards. And I don't know if Council is

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1 going to have questions for Idaho Power tonight. No?
2 Why don't we take a break now and we'll
3 reconvene in about 15 minutes, then we'll hear from the
4 last two. Give people an opportunity to, if there's
5 anybody here that hasn't filled out a comment card that
6 wants to do so, please do so during the break.
7 We'll reconvene about 6:40.
8 (Recess taken.)
9 HEARING OFFICER WEBSTER: It is 6:44. We are
10 back on.
11 My understanding is that we have somebody that
12 has joined us on the phone that would like to give
13 public comment as well. If you're out there, would you
14 please make yourself known.
15 Well, I will come back around to triple check
16 in a minute.
17 But here in person to give testimony tonight
18 is, coming up next is Fuji Kreider.
19 MS. FUJI KREIDER: Good evening. Fuji
20 Kreider, 60366 Marvin Road, La Grande, Oregon. Thanks,
21 and thanks for hearing from me again.
22 First off, I want to thank you all sincerely,
23 all of you, Council and the staff, for the action that
24 you took last evening. That was to extend to the
25 comment period another 30 days to August.

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1 And I want to say, and maybe you were starting
2 to observe from the prior meetings, that you weren't
3 getting people testifying with significant specificity,
4 or whatever the word is. With the first month, with the
5 draft proposed order in front of us, as I mentioned to
6 you last night, people are very, very confused. And the
7 draft proposed order doesn't have the same table of
8 contents as the exhibits and this and that, no numbers
9 and attachments, and other things. It was just getting
10 to be crazy lately. So I really appreciate the extra 30
11 days.
12 I think at this point, most of us have
13 navigated the table of contents and we understand what
14 documents we have to look at and all. So this gives us
15 a little more time to digest it. So thank you for that.
16 You know I've been at all five of these
17 hearings, you've seen me, most of you, that also have
18 been at all five meetings and are probably as tired as I
19 am, or more so, you have to sit and pay attention.
20 But I thought that maybe tonight because I too
21 am going to submit my written comments by the deadline,
22 but I thought I'd take a little time tonight because you
23 don't have a lot speakers. As one of the gentlemen
24 said, it's not really in the culture of east Oregonians
25 to do a lot of public testimony; so we're slow at this.

Page 66	<p>1 But I thought that maybe it would be good for you to 2 just know who I am and a little bit about my journey 3 that got me here and why I'm passionate about this issue 4 and keep coming to all the meetings. 5 I live in La Grande. For about 6 1/2 years my 6 husband and I left and we worked internationally and we 7 worked in international development work, democracy, 8 governance, in the Balkans predominantly -- 9 international development work in democracy and 10 governance processes as an advisor, and also with 11 climate refugees. And so I am also very passionate 12 about climate change and climate issues. 13 We returned in the end, the very end of 2008. 14 In early 2009, just feeling all this -- returning from 15 being abroad, you have a lot of stuff to adapt to. But 16 a big thing was our neighbors. We've been in La Grande 17 since '87, prior to that in Boise actually. So I know a 18 lot of the Idaho Power people, too. 19 But there was a stress. What is going on 20 here? What is happening to the community? People were, 21 like there was this big thing about this power line. 22 And neighbors were pitted against neighbors and 23 everybody was pointing their fingers, No, it should go 24 there, it should go there. It was like the neighborhood 25 was pretty much falling apart.</p>	Page 68	<p>1 of NIMBYs. And we are NIMBYs unless we really 2 understand what this is about. We've got to find out 3 what the need is and why they want to do this. 4 So that started our research. Then from 5 there, we started our group. People started researching 6 their various options. We were in the EIS process at 7 the time. Some people got into environmental stuff. 8 And you guys know Irene, she's the EFSC, blah, blah, 9 blah. 10 Myself got into the real, what's the real 11 need. So my husband and I, and occasionally two or 12 three others, went to Boise every month for 8 months the 13 first year, and then a year and a half later 8 months 14 again with transmission workshops, and then over to the 15 PUC in Salem, et cetera, et cetera. Some of this I told 16 you in Baker. And we educated ourselves. We had to 17 find out. 18 I wanted to know: Am I going to be on the 19 wrong side of history here? Does Idaho Power really 20 need power? Does Idaho need power? I lived in Idaho. 21 I love Idaho. Do they need the power? 22 So in the beginning this started, by 2026, 23 351 megawatts of power, Idaho Power will be short 24 because they're closing the coal plants. Right on, 25 they're closing the coal plants. I'm a climate</p>
Page 67	<p>1 And now, prior to leaving and continued when 2 we returned, I manage the neighborhood listserv. In my 3 neighborhood, which is Morgan Lake neighborhood, you 4 heard from many of my neighbors the other night, I 5 manage the listserv. We have no fire protection so we 6 had to keep in touch with other each; lost pets, the cow 7 is out, a fire is starting. So we keep in touch. 8 So the stress, I was like, Okay, what are we 9 going to do? So we got everybody together. A lot of 10 people had gotten letters from Idaho Power at that 11 point. We got together and said, Okay. What's going 12 on? What can we agree to? Can we figure something out? 13 The only thing we could really agree to was 14 nobody wanted the line. That was a no-brainer. Of 15 course nobody wants a line. But it's not needed, we 16 don't get a substation, there's no power for us, all of 17 these things. Not to mention all the environmental 18 issues, et cetera. So we said, Okay. So one thing we 19 can all agree to, and we can stop this infighting in the 20 neighborhood, is we don't need the line. So let's 21 organize and start to fight it. This was the beginning 22 of the Stop B2H Coalition. That's our little story to 23 tell you. 24 However, I said to the group even, and then 25 thereafter in the email threads, We sound like a bunch</p>	Page 69	<p>1 activist, too. So great thing. 2 350 megawatts, huh, 351 as a matter of fact is 3 the number. That's not -- let's figure this out. Let's 4 see how it goes. So in these IRP meetings, Integrated 5 Resource Planning meetings, coming up with other stuff, 6 other ideas; solar, wind, renewables, et cetera. Oh, 7 no, oh, no, that's too far out into the future. We 8 can't have that. That's too far out in the future. 9 So over time now, two IRP rounds I've been, 10 and I've testified at three IRP rounds with the Public 11 Utility Commission, Idaho Power now has portfolios, 12 that's what it's called, how to satisfy need, they call 13 it portfolios, they have portfolios with solar, battery 14 storage, wind storage, pump storage. Now, some of them 15 are astronomical prices, don't get me wrong. But a lot 16 of them are within reason. 17 They have 24 portfolios to meet their need; 18 they have 12 with B2H, 12 without B2H. Now, you don't 19 need to hear about the 350 megawatts any more at these 20 meetings. That's long gone. They put on 480 megawatts 21 of renewables already in southern Idaho, not counting 22 the Jackpot holding solar farm that I talked about in 23 Baker. 24 This is just context for you guys. I know 25 you're not going to deal with this need stuff in this</p>

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1 way; it's a Public Utility Commission thing. But I want
2 to give you the backdrop. The backdrop is: There are
3 other ways that Idaho Power can meet its needs.
4 Now, the more recent need is about capacity.
5 You don't hear any more about 350 megawatts, coal plants
6 closing; now it's about capacity. So what about
7 capacity?
8 The last go-around with IRP, capacity comes
9 up. We're researching and learning a lot more about
10 capacity nowadays. I can tell you from these meetings
11 and what their options are, there also are choices. Do
12 not feel in a lurch about this. There are plenty of
13 other choices. And every time we go there are more and
14 more options. Technology is improving, costs are going
15 down.
16 For example, something like batteries, which
17 could really, very much it's a game changer for
18 transmission. You've got batteries that are not just
19 battery storage for a solar farm, they actually provide
20 voltage regulation, they smooth the balance on the grid,
21 the peaks and valleys of renewables. Batteries actually
22 regulate that. So they offer about six different
23 ancillary services that can help and secure our grid.
24 And they're not just a storage option, although that is
25 what they do as well.

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1 So as I said, I'm telling you some of this
2 more to put it into context of the urgency or the need
3 that you hear out of Idaho Power, and why so many of us
4 who have so much at stake, and you've heard a lot from
5 people over the last few days and last week, that it
6 would be one thing, if there was no other way; but we
7 know there are other options. This destruction of
8 people's lives and land and habitat and everything else,
9 and the risk of fire, has us all really on edge and
10 living in fear.
11 And I want you to know there are other ways
12 and don't feel like your feet are being held to the
13 fire.
14 It was mentioned tonight a little bit about
15 EIM, energy imbalance market. The energy imbalance
16 market exists already. They're all involved. Idaho
17 Power has been over a year, a year ago April in '18 or
18 whenever they joined finally, okay, it sounds good on
19 the surface. Again, another green thing, let's move the
20 energy around. It's good in that way. But it isn't
21 that you have to have this more transmission to be part
22 of the EIM. The EIM exists, people are participating.
23 And I can tell you, they're making a lot of money.
24 The EIM also makes a lot of money. So if you
25 had more lines, you could do more EIM, you could also

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1 make more money. It doesn't really change our life.
2 I told you about storage. Anyway, the
3 interesting thing in all of this is when we also got
4 started, we researched and learned a lot about the
5 energy industry, and seeing that the future is not going
6 in a centralized grid; the future is in a decentralized
7 grid.
8 I'm proud to be an Oregonian. And I am proud
9 to know on the other side of the state we are working to
10 prepare for microgrids for the Cascadia event, a big
11 tsunami. We're planning for microgrids, we've got all
12 kinds of emergency preparedness, we can disconnect from
13 the central grid, they can island themselves off around
14 these smaller grids.
15 And we should be doing the same thing here in
16 eastern Oregon for fires. There's no reason why we are
17 not preparing for the big forest fire.
18 I live in La Grande. You heard people talk
19 about it the other night. We are like Paradise. It's
20 not going to be our paradise though. We're going to
21 make it different. We are not going to burn up. We are
22 really working hard to protect ourselves. But we have
23 the same kind of climate; we're even drier. We have the
24 same kind of winds, if not stronger, in Paradise. This
25 line is going so close to the city of La Grande that has

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1 everyone on edge. We are more on edge than ever.
2 You heard from my neighbor, lives right down
3 the hill from me. Her house burned in '74, the last big
4 fire. You go to the fire museum in our town, you see
5 where the fire burned. It nearly burned the whole city
6 down and the hospital. Look at where the line is. It's
7 just mind-boggling to many of us that you would even
8 consider, the company could even consider putting a line
9 so close to such a population base.
10 Now, jumping around a little bit. But you've
11 heard a lot of -- what I meant to say in the midst of
12 all this, the line changes a lot. You heard that from
13 other people, too, how it moves this way, that way,
14 whatever. Some of that, from our experience, was
15 interesting because the two routes that you're looking
16 at in Union County, what the company is looking at, did
17 not exist in those early days of our organizing the Stop
18 B2H Coalition.
19 And I can't help but keep this mantra in my
20 head: No good deed goes unpunished. Because when I was
21 part of this coalition initially, we were trying to
22 protect the elk herd. It's a really big elk herd, it's
23 very popular. Most of you have heard about it. People
24 will say it's the next big thing after Jackson Hole, and
25 we need to protect the big game going through the Morgan

<p style="text-align: right;">Page 74</p> <p>1 Lake area. 2 Well, now the power line is in my viewshed, 3 and I generally do not disclose this. I like to think 4 of myself as an activist; I'm not a NIMBY. I am not 5 looking to move the line. I am telling you the line is 6 not needed, but I am directly affected and I have to 7 disclose that. Most of the people know this, Idaho 8 Power knows where I live. So I might as well put it out 9 to you there. 10 I will have, without a tree blocking my view, 11 four towers across my viewshed and then the big span 12 across Morgan Lake Road over to the next hillside. 13 Hanley knows where I live, too. 14 But the thing is, just like some of the people 15 you heard tonight, it's our life. And now I'm not a 16 farmer; so it's not my livelihood. But there was many, 17 many days, many days living abroad, working in hard 18 conditions, when the only thing that could pull me 19 through was the vision of my view. Now, you might not 20 think viewsheds have a lot of value. Viewsheds are 21 priceless. That viewshed is what kept me going. When I 22 returned and working on this project, day in and day 23 out, I work -- I have big bay windows, and that is where 24 I look out on, and it is what keeps me going and it is 25 why I am working so hard to protect it.</p>	<p style="text-align: right;">Page 76</p> <p>1 itself is a big problem. And you can just start there 2 and everything will flow from there. Because if you 3 don't have those boundaries right you have to do the 4 notification over again, and you have a lot of problems. 5 So that is the first big thing. 6 You heard in La Grande about the blasting, 7 about the slope for the Mill Creek route. We have got 8 soil, loose soils, slopes, the hospital right there, you 9 have got problems with that. You heard a lot about 10 that. And I didn't even realize about -- I knew a bit 11 about soil health and whatnot, but listening to Sam 12 Myers speak, I was like, Wow, this is quite an issue 13 with the soil biochemistries as well. 14 Noise, you have listened to noise the other 15 night, the guys that have disabilities and then are 16 going to have towers over them and the noise factor. 17 The roads, the amount of roads is 18 unbelievable. When you think of 670 miles of access 19 roads, 400 miles of new or improved roads, the weeds are 20 just -- you just can't even image. It's not just a cut 21 through the land and then some of our landscapes, these 22 are scars, these are big scars because they are not all 23 treed, it's mixed, as you know. 24 But the weeds will be phenomenal, as many 25 people you've heard speak about, the effects on</p>
<p style="text-align: right;">Page 75</p> <p>1 So that's my story. I continue to work on 2 this. Now I'm totally sucked in as an energy activist, 3 a climate activist. We will be in front of the PUC next 4 spring, and on and on and on. 5 You heard a lot about -- and I will dip into a 6 little bit of the project and will write about in our 7 comments, I won't tell you anything I just told you in 8 my comments, but I will write things about, for example, 9 the boundaries. The boundaries are very, very 10 questionable. The boundaries in front of my house are 11 going to take another piece of my land across the way of 12 the viewshed. There's a road to a nowhere. It's a road 13 to a tower. It doesn't connect to anything. It doesn't 14 connect to the road of my house. It doesn't connect to 15 the Morgan Lake Road. There is this road to nowhere. 16 That is one little boundary. 17 There is boundaries around all the spur roads 18 and all of these different access roads. Some are in 19 the project; some are not in the project. What is the 20 rhyme and reason there? Is it because Idaho Power 21 doesn't want to have to notify people because of where 22 the certain boundaries line are that we incorporate more 23 people? Is it because of mitigation and not wanting to 24 mitigate in certain areas? It's not clear. 25 But that part of the application in and of</p>	<p style="text-align: right;">Page 77</p> <p>1 agricultural land with those weeds, the cost involved in 2 that, the property owners just dealing and contending 3 with the weeds. The health of the rangelands that we 4 have, the habitat, the big habitat issues with more 5 weeds on the rangelands. 6 Habitats, you heard about Washington ground 7 squirrels, I do know a little bit, I lived in Morrow 8 County, Washington ground squirrels. Most of Morrow 9 County's route has not been even surveyed yet for 10 Washington ground squirrels. So you have got issues 11 there. 12 The raptors, the eagles and other raptors 13 around Ladd Marsh, Ladd Marsh is a protected area, it 14 has a lot of tourism. We have a big birding festival in 15 La Grande every year around Ladd Marsh, and this goes 16 right through Ladd Marsh and through an area that 17 already has federal mitigation lands on it. I won't get 18 into that. 19 You have sage-grouse, Mark Bennett talked 20 about that in Baker County. Sage-grouse, the last of 21 the subspecies, of a particular subspecies of 22 sage-grouse about to go extinct and will when it goes 23 through Baker County. That is just a number of -- I'm 24 not going to get into fisheries and roads. But the 25 environmental effects, you'll hear about that in writing</p>

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1 by many people, I'm sure.
2 Tourism, recreation, I mentioned Ladd Marsh,
3 but who in their right mind would think about putting
4 those transmission towers in line, in front of the
5 National Historic Oregon Trail Interpretive Center in
6 Baker City. This is their premier tourism destination.
7 We do not have much economy going on out here except
8 for -- after you get ag and timber, the next thing is
9 tourism. Yet, we are expected to just stomach this line
10 coming through and across some of the best tourism and
11 recreation areas that we have. Not just off the beaten
12 path where you won't see things, these are coming right
13 into the areas that we depend on for tourists to come,
14 not an annual festival, even just local people day in
15 and day out.
16 The viewsheds, like I said, I feel like a "me
17 too." My viewshed, the quality of life and how peaceful
18 it all is for many of us. And I know a lot of people
19 come and they think it's just bare ground out there,
20 just sagebrush or whatever. But this is the vista the
21 pioneers saw when they came over Flagstaff Hill and saw
22 the Baker Valley, and they came into the Grande Ronde
23 Valley, these huge open vistas. And these are things
24 that are very dear to us and spiritual to us -- and I'm
25 going way too deep -- the forest as well. But we all

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1 have different things that keep us centered.
2 So the big wide open spaces is a big deal for
3 many of us, and please do not discount it. Real
4 property values, my property value for certain is going
5 down. I talked to the appraiser to come up and give me
6 an appraisal. There is no way. I live in a remodelled
7 trailer basically, but I have got a million dollar view,
8 and that view is going to be gone. So I'm just going to
9 have my little mobile home that is worth nothing. I
10 mean, property values is also a big deal for many of us.
11 Eastern Oregon University, it's a rural
12 university, they have to make a go of it. We don't have
13 a state board of ed anymore. And you stand on the
14 campus and you look up at the hillside, and there will
15 be a transmission line. Now, I know when I was looking
16 around at colleges with my parents, we looked around and
17 saw how pretty and how nice it was or what you could do,
18 what was the recreation in the area, et cetera,
19 et cetera. And I just look at that and I think, how
20 could that not affect recruitment, recruitment at our
21 premier rural college, or a rural university for the
22 state of Oregon.
23 Anyway, the last kind of parts that I just
24 wanted -- I'm jotting some notes down and wanted to
25 share are big ones in the news. The real big ones

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1 lately in the news is fire and grid security. So back
2 to industry, energy industry, and all that again.
3 A centralized grid is becoming less and less
4 secure for us. I mentioned the fire before and I
5 mentioned planning for microgrids, like we are doing on
6 the coast for the tsunami. We need to be planning from
7 a bottom up grid, not a top down grid. It's going to be
8 a very difficult transition. Just think of what Ma Bell
9 went through and the telephone and the telecom.
10 But a centralized grid is very susceptible,
11 not only to the weather that we have, the trees falling
12 down, whether it's an ice storm or whatever and taking
13 out the grid, taking out the grid, having Cascadia
14 failure for many, many communities, or even states, but
15 also cyber attacks.
16 So we know that we are hacking the Russian
17 grid and we know that Russians are hacking our grid. We
18 have domestic terrorists. Look at where we live. We
19 had a Malheur takeover not too long ago. Don't kid
20 yourself. This grid security stuff is big stuff. We
21 have to be planning differently.
22 And I know this isn't your gig, it's more
23 again to the PUC, or even beyond them, because they
24 don't even really get into that level. But it's in the
25 news a lot, and people are not confident in continuing

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1 the path of investment, a \$1.2 billion investment that
2 we are going to be paying 30 years or more for something
3 that is already outdated. So the grid security issue is
4 problematic.
5 And then fire, fire, everybody talked about
6 fire, you all heard about fire. We live in fear of
7 fire.
8 Now, the BPA recently has done a really good
9 move. First of all, they canceled out of the I-5
10 Corridor Reinforcement Project. It went from southwest
11 Washington to Troutdale. Why? In their CEO's piece on
12 that, he said, We are going for the more wireless
13 solution. That's the future. It's not really wireless.
14 What it is we are talking about is building generation
15 closer to load so you don't have so much transmission.
16 Now, you are still going to have distribution.
17 I'm not talking -- it's funny they use the word
18 "wireless solution" because it's not totally wireless.
19 But when you build close to the load, you do not have
20 the transmission losses of 12 to 20 percent
21 transmission loss. You do not have these risks of cyber
22 attack as much as you would with the centralized grid.
23 You don't have as much fire risk. Smaller lines, less
24 heavy.
25 And BPA is upgrading, they are moving towards

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1 the more digitized grid, smart technologies in the
2 substation. They are moving to maintaining their
3 current infrastructure. That's the recent stuff with
4 their budget. We've been analyzing their budget and
5 seeing where they are putting their money, which, by the
6 way, they still have not budgeted for B2H, except for
7 permitting, but they are putting money into fixing their
8 poles, their lines, their corridors and investing there.
9 These folks are really, I think, looking to the future.
10 Now, maybe necessity is the mother of
11 invention, and BPA is in a world of financial hurt,
12 whereas, the other two investor-owned utilities, they
13 are not in a world of hurt financially. As a matter of
14 fact, they just continue to see the dollar signs in
15 their eyes. Because, again, when you have this
16 transmission line, it isn't just for free.
17 So all of our wind farms and all or our
18 renewables are also going to have to pay wielding
19 charges on these new lines, this new line, and it's not
20 going to be a cheap thing for us. Who gets those taxes
21 or those tariffs on those lines? The companies that own
22 that line.
23 Again, back to the energy imbalance market.
24 It isn't just sounding nice, we move around energy. We
25 are talking big money and big profits here.

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1 So that's the bottom line, that's what we are
2 up against. And all of us who have our lives, our
3 livelihood and the people that you heard from for the
4 last 2 weeks, I hope you hear us, because this is what
5 we are up against. It's basically a David and Goliath
6 kind of thing. And we are going to do the best we can.
7 We are not going to go away. We are not going to stop,
8 because for many of us, this is all we really have. So
9 we are going to keep working at it, and we are going to
10 do the best we can. Like I said, I'm trying to not
11 personalize this.
12 Dealing with the standards you have, the
13 application, the DPO, we are going to do our best
14 research, we are going to send you the best comments we
15 can with they extra 30 days you gave us.
16 But it's been really stressful, extremely
17 stressful. Sorry that I broke, I had a little meltdown
18 there. But I have hopes for Oregon. I really do. The
19 microgrids on the coast, I think that is the beginning
20 of something really new and really cool. I think we are
21 investing in renewables that we need to be investing in.
22 The regulatory reforms, for 8 months I was
23 involved in this process, Senate Bill 978, about the
24 regulatory reforms that have to happen. We are
25 incentivizing the investor-owned utilities so the

Page 84

1 investor-owned utilities can be incentivized to take
2 some risks, to not just go least costly, least risk
3 portfolio. Maybe take a little more risk, do something
4 a little more innovative, more towards the green energy
5 future that we are about to head into. And the market
6 is going to do that for us. I know it will.
7 But I think here in Oregon we have something
8 going for us because we are moving in that direction
9 already with the regulatory reforms on the table, if
10 they ever get back to work. That's another story;
11 right?
12 And part of that is green energy jobs, not
13 just putting solar panels or whatever, but I'm talking
14 about insulation, windows, new building codes, energy
15 efficient appliances, and on and on and on. We have so
16 much of an industry that can be emerging for us,
17 especially in rural Oregon where we don't have so many
18 opportunities. But a handful a transmission jobs, 4 to
19 6 months? First off, 4 to 6 months, 25 percent local
20 hires for 245 jobs. How many jobs does that come to and
21 what are they going to do? They are driving some trucks
22 around, cleaning up stuff. No real long-term jobs.
23 Under 10, it's confidential, but we know -- so it's a
24 handful of jobs that will be the long-term jobs.
25 When you can think of all the green energy

Page 85

1 jobs that we could create with \$1.2 billion. Change all
2 the poles, re-conductor. They have five lines coming
3 from the Pacific Northwest into Idaho, five 230 lines,
4 they could all be re-conducted on the same poles, the
5 same corridor, and up them to 345s, at capacity. Do the
6 math on five of those lines. There are ways to do this
7 without building a new infrastructure and a new
8 corridor.
9 And co-locating? You co-locate, you can't
10 tell me that if a fire takes out the 230 line in my
11 neighborhood, that the 500 kV standing 125 feet next to
12 it isn't also going to go down. This is not redundancy
13 and resiliency that they are prophesying that it would
14 create.
15 I'm sorry. I'm going on longer and I'm
16 rambling.
17 But I trust that you guys will protect us.
18 The standards are good and meant to protect us and put
19 in conditions that are workable.
20 Now, they are starting to get outdated, sure.
21 You don't have climate standards. You don't have
22 environmental justice standards. And when you think of
23 Malheur County, where did the get line moved off of and
24 who is it in front of now? I didn't even want to get
25 into the environmental justice issues there.

<p style="text-align: right;">Page 86</p> <p>1 But I still trust that we will do the right 2 thing here. And I believe over time that Idaho Power's 3 own IRP process will also discover that the 4 decentralized local generation, local distribution, 5 non-centralized huge transmission grid is the way of the 6 future. And once they change their business model to 7 correlate and align with that new energy future, I think 8 we are all going to be better off in the end. 9 So on a good day, I'm very optimistic; and on 10 a bad day, you catch me like you saw me a few minutes 11 ago. 12 So anyway, that is my journey, that is my 13 story. I probably won't ever talk to you guys again, 14 but you'll get my stuff in writing. And I wish you 15 luck. This is not an easy process. Thank you. 16 HEARING OFFICER WEBSTER: Thank you, 17 Ms. Kreider. 18 Next up we have Jerry Myers. 19 COUNCILLOR ROPPE: I have a question. How 20 many people do we have total? He said there was 21 somebody on the line, and we also wanted to talk to 22 Idaho Power before we leave, and we only have 45 minutes 23 left. 24 HEARING OFFICER WEBSTER: Right. He would be 25 the last member of the public and then we have Idaho</p>	<p style="text-align: right;">Page 88</p> <p>1 Everybody has one light there in each room. So that was 2 all they had. That was the only power they had. There 3 had to be a well, too. 4 So anyway, in my life, somewhat, I joined the 5 co-op when I got older than 21. And as another 6 neighbor, when running with Haddock on the -- was the 7 director, and he had to move to the country, somewhere 8 else. So he wanted to get a new director. So I said, 9 well, I thought maybe that would be fun, too. So I did 10 that for quite a while. 11 Then I had a tremendous amount of -- well, I 12 was there for 23 years. Even developing our country 13 around to where everybody had, at first, where they had 14 30 volts of electricity. That was just for everything 15 in the wiring and in the house, every building had to be 16 redone. 17 So we got that big, that new bolt of 18 electricity, that was really, just had one -- I think it 19 had just one big wire on all of the wires on about 20 25 miles. And that was the end of the line. And we 21 lived there at end of the line and we are on the last 22 pole. 23 So it didn't take very long, found out that we 24 needed a lot more, where everything we started buying, 25 things needed power. First thing you only had a</p>
<p style="text-align: right;">Page 87</p> <p>1 Power. 2 If there is anybody on the line, on the phone 3 line, that wants to speak up, please make yourself known 4 now. 5 COUNCILLOR ROPPE: Thank you. 6 HEARING OFFICER WEBSTER: So hearing none, we 7 have just Mr. Myers and then Idaho Power. 8 MR. JERRY MYERS: Thank you. It won't take 9 long. 10 HEARING OFFICER WEBSTER: If you could start 11 with your name and your address, please. 12 MR. JERRY MYERS: My name is Jerry Myers from 13 Butter Creek, Little Butter Creek. I have difficulty 14 talking sometimes. What more do you need? 68477 Little 15 Butter Creek. 16 I've got 5 more days and I'll be 85 years old. 17 My granddad started farming over there in 1898. And he 18 himself was a brother, and he didn't want to do that. 19 He just wanted to go to town and drink beer. 20 Well, we have done a lot of things on the 21 farm. It started from we didn't have any electricity 22 for anything at all. And so my granddad figured out a 23 way, something they called a tower, a tower with a 24 little fan on it, and he bought some gigantic batteries 25 and put it in a building. And that is what he kept.</p>	<p style="text-align: right;">Page 89</p> <p>1 battery, or an electric, something to charge things, the 2 thousands of elements of things that we have nowadays. 3 So the first thing you know pretty quick we 4 had to have bigger wire because the electricity gets 5 very low. I'm getting too far off the subject here. 6 But we will go directly to, as a director, I 7 learned slowly but I got, after a while, it seemed that 8 Bonneville electricity, power was everywhere I guess in 9 Idaho, that they were kind of tough people. So we had 10 to be careful dealing with. And it was something that 11 kind of developed over many years and did not have a 12 good subject to talk about. So that was the first thing 13 we noticed right away. 14 So for what more -- it took a tremendous 15 amount of electricity, but we had plenty of power right 16 here. And first thing in 1930, early '30s, all of 17 Bonneville had started building dams all around the 18 Columbia River, and they were big. They dammed the 19 whole river and built up everything. That was the 20 subject of many things. Went right from -- right here 21 on to out in all of Washington and right here. And it 22 mostly was pumping with electricity and water. So that 23 goes on and on forever practically. Every day I think 24 they built a new thing. 25 But I'll go back to my first part. It took me</p>

August 22, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project (B2H) 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

This letter is a public comment for the above referenced project. Specifically, this letter will discuss Idaho Power's compliance with Standard 345-022-0110 - Public Services, in Exhibit U (3.5.6.2 and 3.5.6.5) of the EFSC application for B2H to ODOE. The letter will discuss the impact potential wildfires caused by the B2H transmission line will have on the ability of public and private providers within the analysis area to provide fire protection.

The effect of transmission lines on wildfire impact in western states has been well documented. In California, PG&E lines have caused 5 of the 10 most destructive fires since 2015, producing a liability of over 30 billion for PG&E. When considering the impact of B2H's operation, residents of Union County find the similarities between La Grande and Paradise California, where the infamous Camp Fire struck in 2018, deeply concerning. La Grande and Paradise share similar elevations and populations, however, La Grande has several characteristics that make it significantly more vulnerable to the ravages of wildfire than Paradise. For instance, La Grande averages 18 inches of rain yearly while Paradise enjoys 55 inches. Additionally, the proposed line runs adjacent to La Grande, while the line causing the Camp Fire was 7 miles from Paradise. *Oregon's 2006 Communities at Risk Assessment* by the Oregon Department of Forestry cites a startling fact: **The fire risk of the wildland urban interface (WUI) in La Grande has been rated the #1 WUI fire risk in Oregon!**

There is no doubt that construction of the proposed B2H transmission line would significantly increase the risk of wildfire in our area. From Idaho Power's own Draft Protection Order (Exhibit U-3.5.6.2, p. U-24): "Most activities will occur during summer when the weather is hot and dry. Much of the proposed construction will occur in grassland and shrub-dominated landscapes where the potential for naturally occurring fire is high. Project construction-related activities, including the use of vehicles, chainsaws, and other motorized equipment, will likely increase this potential risk in some areas within the Site Boundary. Fire hazards can also be related to workers smoking, refueling, and operating vehicles and other equipment off roadways. Welding on broken construction equipment could also potentially result in the combustion of native materials near the welding site." Idaho Power recognizes this hazard but makes no consideration of it in its application.

There are several specifics to examine in an analysis of the proposed B2H line's effects on Union County's ability to provide fire protection services. Firstly, firefighting crews in our region are limited and volunteer. In their application, Idaho Power avers, "Most of the fire districts within the analysis area comprise volunteers, and in some cases, it takes considerable time to collect and mobilize an entire fire crew." As well, JB Brock, Union County emergency Manager states in Idaho Power's application "volunteer fire departments (rural fire protection districts) have a hard time finding volunteers due to budget constraints, similarly to budget constraints at the state and federal level. The wildland fires are getting bigger and cost more to fight" (U-1C-6). Fire crews in Union County are not equipped to handle potential wildfires generated by the proposed B2H transmission line.

The fact that fire crews are unstable, small and volunteer affects many aspects of their ability to respond to wildfires. Delayed response times, as noted in the quote from the previous paragraph, is one effect. Estimates of response time in the EFSC application are best-case scenarios. The estimate of 4 to 8 minutes as the response time in Union County (Table U-10) is far from even a best-case scenario (p. U-17). Residents that live on Morgan Lake Road concur that driving time is at least 10-15 minutes to the most accessible areas of the line from the base of Morgan Lake Road. Add to this estimate travel time from the La Grande Fire Station (approximately 7 minutes) and the time needed for individual fire fighters to travel to the Fire Station for a more realistic best-case scenario response time. The Paradise Camp Fire burned at a rate of over 1 acre per second!

Another factor in transmission line fires particularly impactful for small volunteer fire departments is the complications to firefighting introduced by the transmission lines themselves. According to Marvin Vetter, ODOF's Rangeland Coordinator, "local crews have no training in this scenario and will wait for the lines to be de-energized." JB Brock, Union County Emergency Manager, states, "The project (transmission line) could limit the ability on initial attack if fire fighters have to wait for power lines to be de-energized." (U-1C-6) These delays allow fires to grow even more.

How can communities struggling to maintain volunteer fire crews hope to address the overwhelming additional challenges and risks imposed by a project such as the B2H transmission line? Where is this addressed in Idaho Power's application and how can Idaho Power conclude that the proposed B2H transmission line is "not expected to have significant adverse impacts on fire protections services" (Exhibit U 3.5.6.2)? Considering the current capacities of fire protection services in Union County and the additional risks of wildfire imposed by the B2H transmission line, I urge you to act in accordance with state statute OAR 345-022-0110 and reject Idaho Power's application to construct the Boardman to Hemingway transmission line.

Sincerely,

Fuji Kreider
60366 Marvin Road
La Grande, Oregon 97850

fkreider@campblackdog.org

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

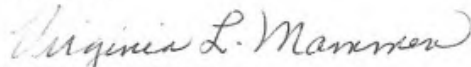
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

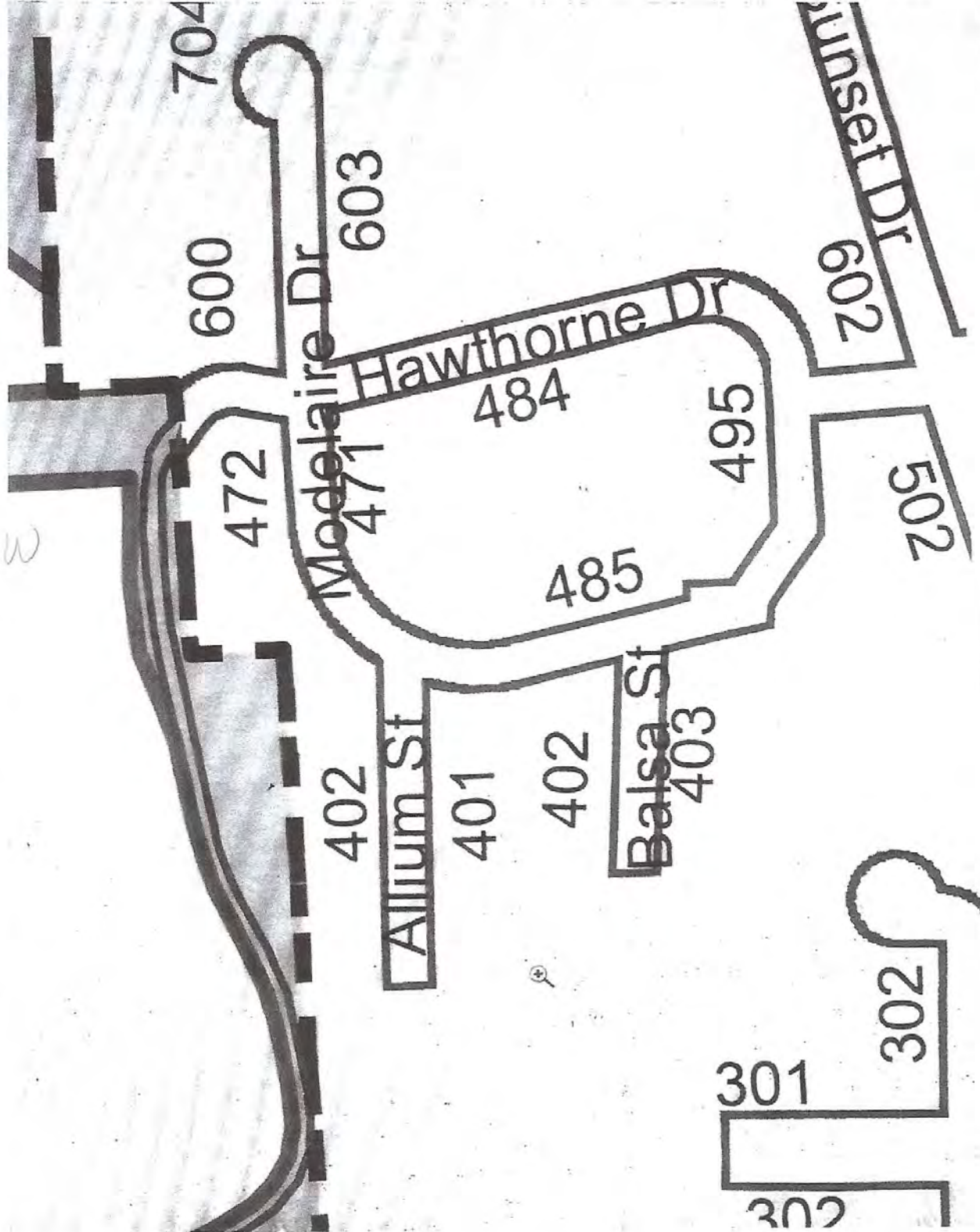


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

7/25/2019

Gmail - Modelaire Roadway Specifications

Exhibit 6



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



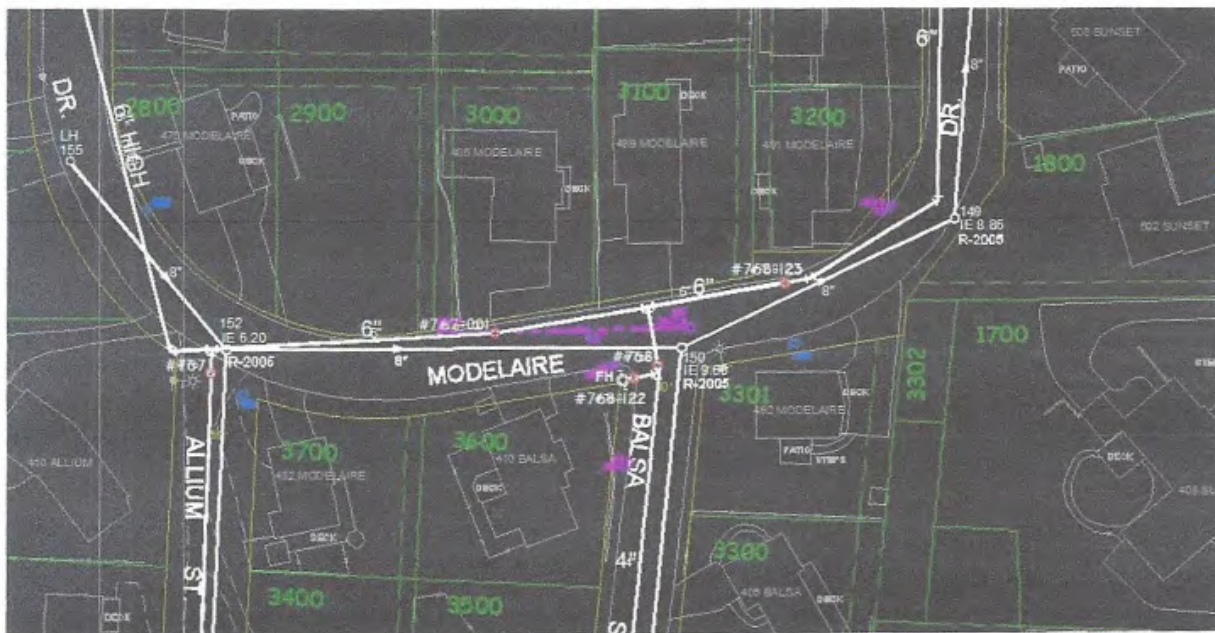
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

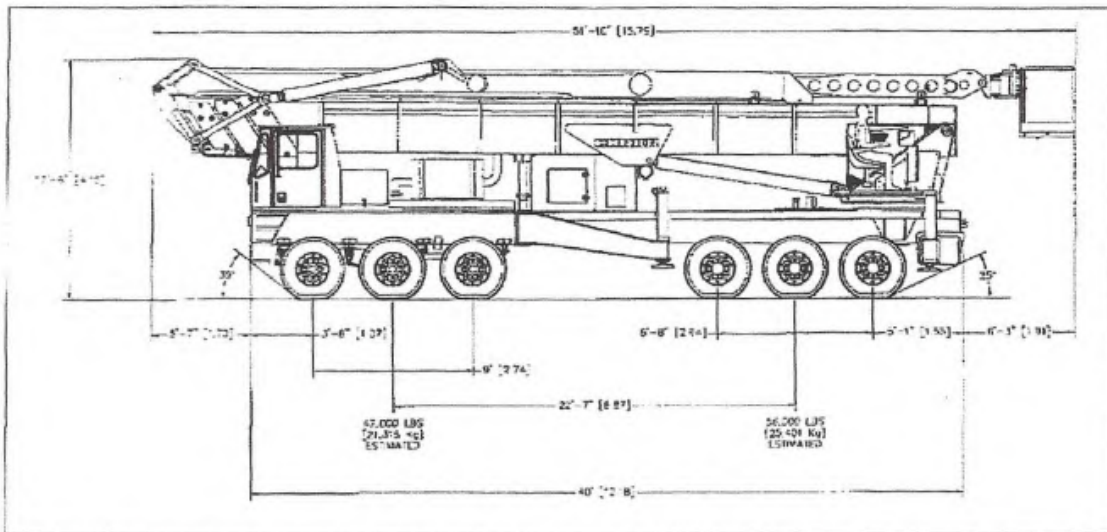


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

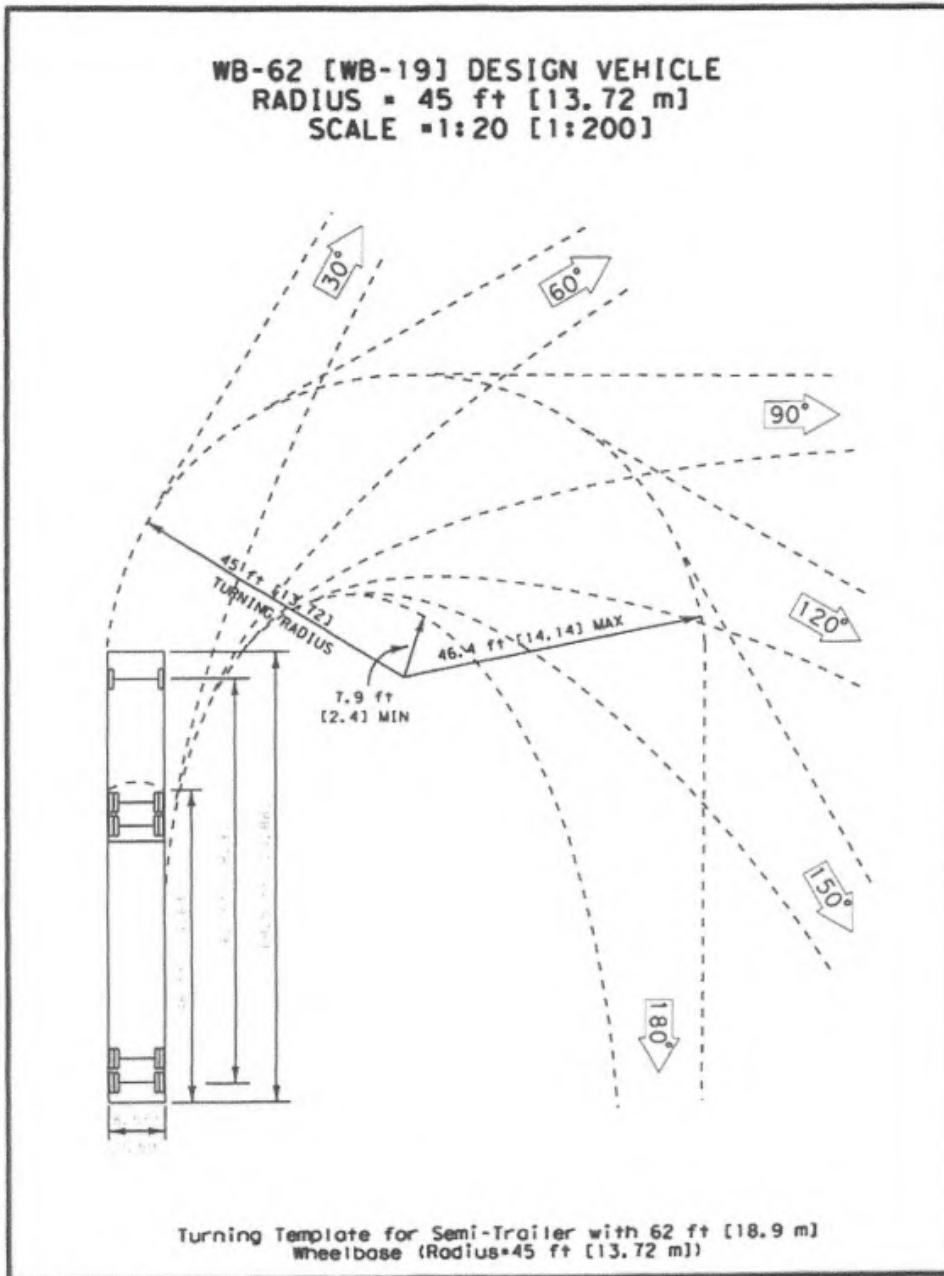


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

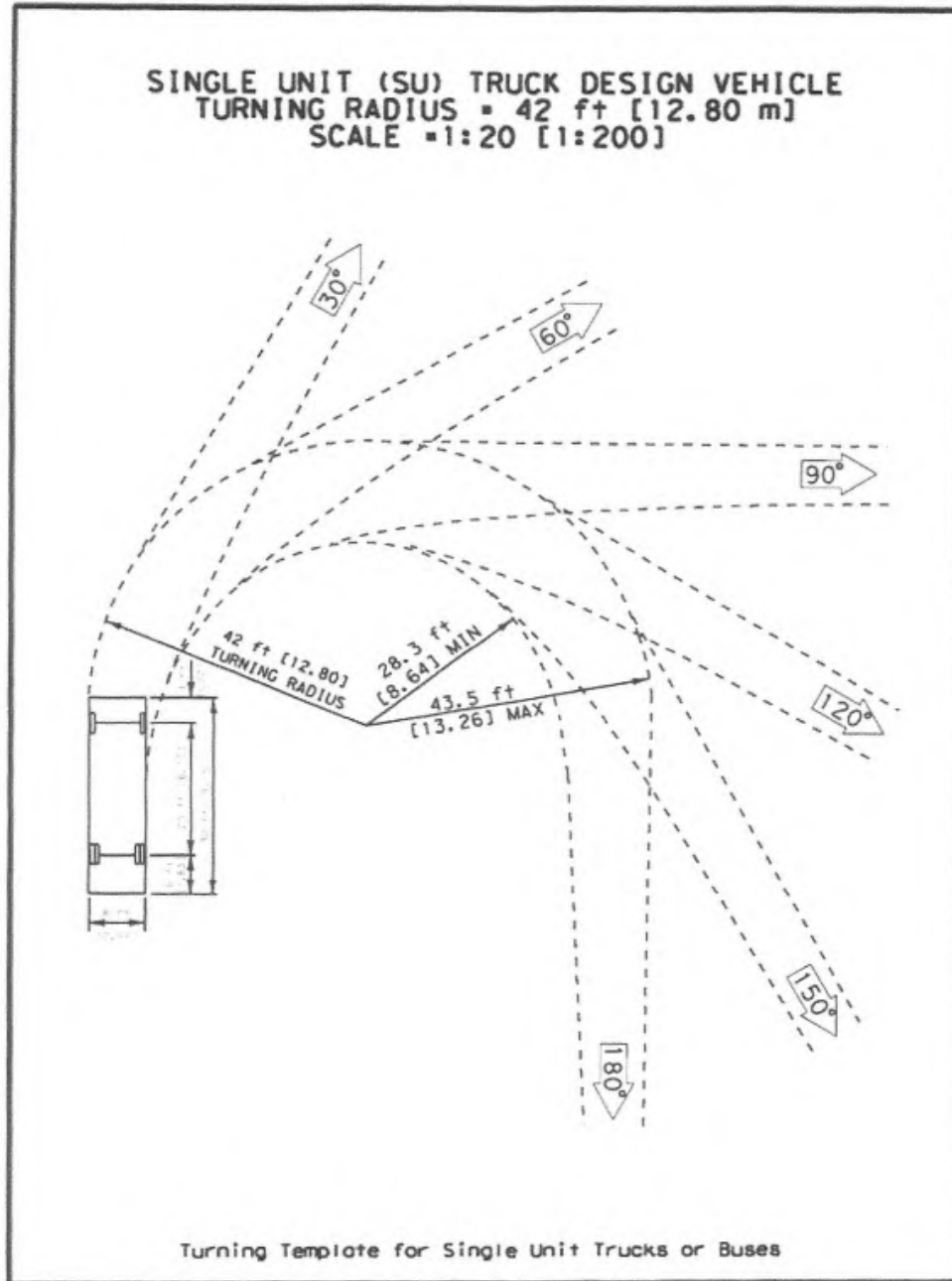


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

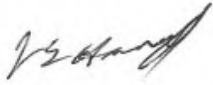
Section 17. TRUCK ROUTES

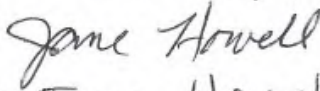
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

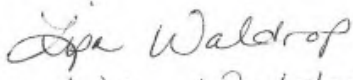
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

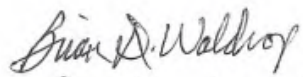
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

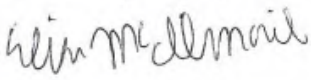
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME James E. Howell II
ADDRESS 482 Modelaire Dr
EMAIL j.howell2@frontier.com

SIGNATURE 
PRINTED NAME Jane Howell
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PRINTED NAME Lisa Waldrop
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SIGNATURE 
PRINTED NAME BRIAN D. WALDROP
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SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRES DR.
EMAIL mcilmail154@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850
jessiehuxell@live.com

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

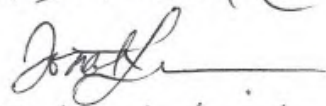

Chris Huxell
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CHRIS Huxell @ EMAIL.COM

SIGNATURE

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ADDRESS

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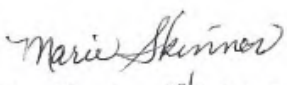

Jonah Lindeman
702 Modelaire LaGrande
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SIGNATURE

PRINTED NAME

ADDRESS

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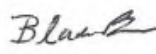

Marie Skinner
208 3rd LaGrande
marieskinner@hotmail.com

SIGNATURE

PRINTED NAME

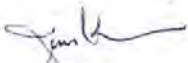
ADDRESS


EMAIL

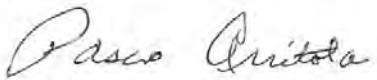

Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

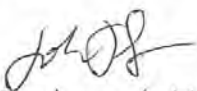
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SIGNATURE 
PRINTED NAME Dale Mammen
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EMAIL dmammen@conr.com


SIGNATURE 
PRINTED NAME Jim Kreider
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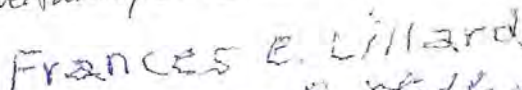
SIGNATURE 
PRINTED NAME Judie Arritola
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PRINTED NAME Pasco Arritola
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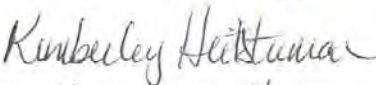
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SIGNATURE 
PRINTED NAME Andrea Galzow
ADDRESS 486 Hawthorne DR, La Grande
EMAIL foreverfamily33@aol.com


SIGNATURE 
PRINTED NAME Frances E. Lillard
ADDRESS 477 Madelaine Dr. L.G.
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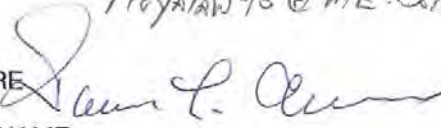
SIGNATURE 
PRINTED NAME Brent H. Smith
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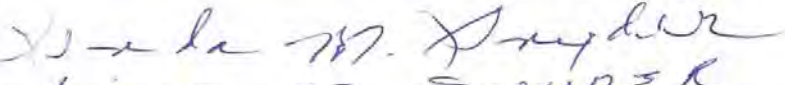
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
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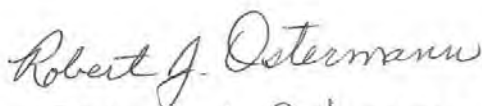
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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EMAIL Kimheitstuman@hotmail.com

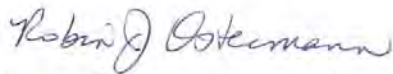
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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
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EMAIL Hoyalan95@ME.com


SIGNATURE 
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EMAIL N/A

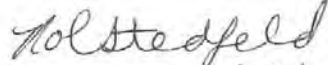
SIGNATURE 
PRINTED NAME Linda Snyder
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EMAIL


SIGNATURE 
PRINTED NAME Robert J. Ostermann
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EMAIL

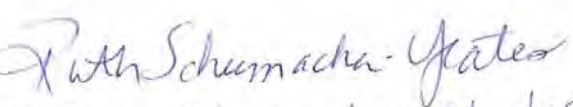
SIGNATURE 
PRINTED NAME Robin J. Ostermann
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EMAIL

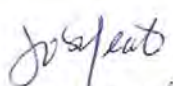
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SIGNATURE 
PRINTED NAME Jonathan D. White
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SIGNATURE 
PRINTED NAME Robin Stedfeld
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EMAIL rstedfeld@yahoo.com

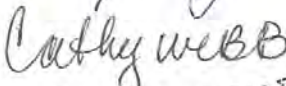
SIGNATURE 
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ADDRESS 410 Balsa St. La Grande Or.
EMAIL

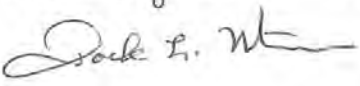
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
EMAIL ruthschumacheryeates@gmail.com

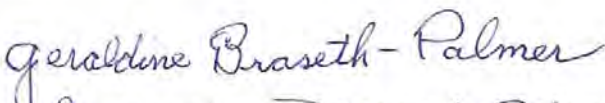

SIGNATURE 
PRINTED NAME JOHN YEATES
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EMAIL jyeates52@gmail.com


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SIGNATURE 
PRINTED NAME Lois BARRY
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EMAIL loisbarry31@gmail.com

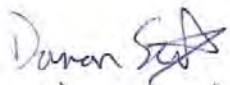
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PRINTED NAME CATHY WEBB
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EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
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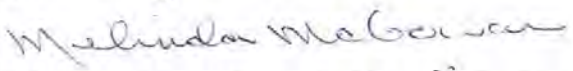
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
ADDRESS 1602 BLDENEST DRIVE LA GRANDE, Ore 97850
EMAIL 


SIGNATURE 
PRINTED NAME Jean BAPH
ADDRESS 1509 MADISON AVE LaGrande, OR 97850
EMAIL Jraph19@gmail.com

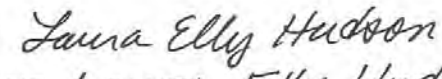
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL Sexton.damon@gmail.com

SIGNATURE 
PRINTED NAME Cory Sexton
ADDRESS 401 Balsa Street La Grande OR 97850
EMAIL Corytris@gmail.com

SIGNATURE 
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE 
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL Keithdhudson@gmail.com

SIGNATURE 
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL v1wd1910@gmail.com

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande, OR 97850
EMAIL acavinat@eou.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR
EMAIL joehorst@eoni.com

SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97 W Hawthorne Dr, LaGrande, Or. 97850
EMAIL asherei@frontier.com

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 Modelaire Dr. La Grande, OR 97850
EMAIL hnull@comi.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street LaGrande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 2009 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL MERLECOMFORT@GMAIL.COM

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL r.maille@icloud.com

SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C Kevan*
ADDRESS 1511 W Ave LG
EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Belketer Ln - LaGrande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - **Drill site 95/3 and 95/4 on unstable and steep slopes**
345-022-0020

(c) ...*The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...*

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*”

presenting design and construction challenges." IPCs stated original intention to the EFSC was the following: "Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

The area surrounding the drill site 95/3 and 95/4 is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission "facility." While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,

 Signature Susan L. Kreutz Printed Name:

Mailing Address: 62187 Gaertner Lane
LaGrande OR 97850

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Union County, Oregon, Union County Emergency Operations Plan – Hazard Analysis. Updated – 6/30/2016.

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.


Signature

Susan L. Kreutz
Printed Name

Mailing Address: 62187 Gaertner Lane
LaGrande OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,



Signature

Printed Name:

Mailing Address:

Susan L. Kreutz
62187 Gaertner Lane
LaGrande OR 97850

Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within 1/4 mile of blasting site.


Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,



Name: Susan L. Kreutz

Address: 62187 Gaertner Lane
La Grande OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

**COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT
PROPOSED ORDER**

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) which states that Exhibit X must include information about noise generated by construction and operation of the Project within ½ mile of the site boundary. The site boundary means "the perimeter of the site of a proposed energy facility, it's related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant" (OAR 345-001-0010(55)).

1. The applicant lists the areas which are included in the site boundary in Exhibit F, Page F-2, however, they failed to include noise modeling or include all the receptors within the ½ mile area beyond the entire site perimeter.
2. The applicant failed to do noise modeling for all noise sensitive property as they did not include churches, schools, libraries, or hospitals as is required by the definition in OAR 340-035-0015(38).
3. The applicant also failed to include the noise identified in OAR 340-035-0035(1)(b)(B)(ii) as not being exempt from the ambient statistical noise level indirectly caused by or attributable to that source including all its related activities. This section states, "Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The application is not complete prior to the applicant finishing Exhibit X to include all sources required by this rule as

well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

No Proposed Order can be issued until the developer has shown that they meet the requirements at the time a site certificate is issued. OAR 345-015-0190(5) allows the Department to find the application is complete when the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. While not all information required by OAR 345-021-0000 and 0010 must be submitted, there must be information adequate to show they meet the requirements or will meet them by implementing the conditions contained in the site certificate. The draft site certificate does not assure that the noise standard will not be exceeded, and the developer has not provided noise modeling or included modeling for all required sources of noise to establish the ambient statistical noise level of the development for all NSR's. Missing information includes: 1. Identification of all noise sensitive receptors within ½ mile of the entire site boundary; 2. Identification and notice to the owners of all noise sensitive properties; and 3. Modeling which includes Items (5)(b) - (f), (j), and (k) which cannot be excluded from the ambient noise measurement.

Sincerely,



Signature

Printed Name:

Susan L. Kreutz

Mailing Address:

62187 Gaertner Lane
LaGrande OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: Susan L. Kretz

Address: 62187 Gaertner Lane
La Grande, OR. 97850

August 16, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

RECEIVED

AUG 23 2019

DEPARTMENT OF ENERGY

B@H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I have grave concerns about the proposed placement of the Idaho Power Boardman to Hemingway Transmission Project. My concerns are for the safety of myself, my family and the citizens of La Grande if this line is erected. My primary concerns are twofold: slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf).

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007),

Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were ALL ATTRIBUTED TO ELECTRICAL OR POWER LINES.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the City as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an UNACCEPTABLE risk for our citizens.

The current proposal for a Boardman to Hemingway electrical transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande. This proposal should be REJECTED.

Sincerely,



Name Ellen Krueger
Address 2406 E M Ave
La Grande OR 97850

ESTERSON Sarah * ODOE

From: Earlene Lamb <peggye@eoni.com>
Sent: Wednesday, August 21, 2019 9:27 AM
To: B2H DPOComments * ODOE
Subject: B2H powerline

Chair Beyeler and Members of the Council:

Stop B2H Now.

When we moved to our home twenty years ago (403 Allium St.) we had to sign a statement that we knew the hill was unstable and had the possibility of shifting. Now, the plan is to bring huge trucks and other equipment in to our family neighborhood. No sidewalks exist and children travel to and fro through our neighborhood. Does that seem like a good scenario? And for what?

Technology that will be outdated and obsolete before it is completed! Stop B2H!

earlene lamb
Cell: 541-786-8039

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - Drill site 95/3 and 95/4 on unstable and steep slopes
345-022-0020

(c) ...The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30; High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*”

presenting design and construction challenges." IPCs stated original intention to the EFSC was the following: "Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

The area surrounding the drill site 95/3 and 95/4 is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission "facility." While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,


Signature


Printed Name:

Mailing Address: 2214 East N Av
LaGrande, Or.
97850

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Union County, Oregon, Union County Emergency Operations Plan – Hazard Analysis. Updated – 6/30/2016.

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.


The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:
The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.


Signature

Doris LaRae
Printed Name

Mailing Address: 2214 East N Ave.
LaGrande, Or,
97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT


Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 20l of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name: Doris LaRae
Mailing Address: 2214 East N Av.
La Grande, Or.
97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT PROPOSED ORDER

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

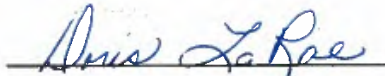
IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) which states that Exhibit X must include information about noise generated by construction and operation of the Project within ½ mile of the site boundary. The site boundary means "the perimeter of the site of a proposed energy facility, it's related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant" (OAR 345-001-0010(55)).

1. The applicant lists the areas which are included in the site boundary in Exhibit F, Page F-2, however, they failed to include noise modeling or include all the receptors within the ½ mile area beyond the entire site perimeter.
2. The applicant failed to do noise modeling for all noise sensitive property as they did not include churches, schools, libraries, or hospitals as is required by the definition in OAR 340-035-0015(38).
3. The applicant also failed to include the noise identified in OAR 340-035-0035(1)(b)(B)(ii) as not being exempt from the ambient statistical noise level indirectly caused by or attributable to that source including all its related activities. This section states, "Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The application is not complete prior to the applicant finishing Exhibit X to include all sources required by this rule as

well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

No Proposed Order can be issued until the developer has shown that they meet the requirements at the time a site certificate is issued. OAR 345-015-0190(5) allows the Department to find the application is complete when the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. While not all information required by OAR 345-021-0000 and 0010 must be submitted, there must be information adequate to show they meet the requirements or will meet them by implementing the conditions contained in the site certificate. The draft site certificate does not assure that the noise standard will not be exceeded, and the developer has not provided noise modeling or included modeling for all required sources of noise to establish the ambient statistical noise level of the development for all NSR's. Missing information includes: 1. Identification of all noise sensitive receptors within ½ mile of the entire site boundary; 2. Identification and notice to the owners of all noise sensitive properties; and 3. Modeling which includes Items (5)(b) - (f), (j), and (k) which cannot be excluded from the ambient noise measurement.

Sincerely,



Signature

Printed Name: Doris LaRae

Mailing Address: 2214 East N Av.
La Grande, Or.
97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.



Ms. Doris La Rae
2214 E. N. Ave.
La Grande, OR 97850

Energy Facilities Siting Council
c/o Kellen Standenburgh, Senior Siting Analyst
Oregon Dept. of Energy
550 Capitol St. NE
Salem, OR
97301

97301-374299



PORTLAND, OREGON
09 AUG 2015 PM

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development before issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.



Ms. Doris La Rae
2214 E. N. Ave.
La Grande, OR 97850

Energy Facilities Siting Council
c/o Kellen Standenburgh, Senior Siting Analyst
Oregon Dept. of Energy
550 Capitol St. NE
Salem, OR
97301

97301-374299





Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) greg LARKIN
Mailing Address (mandatory) 59655 MORGAN LAKE ROAD
LAI RANDE ORE 97850
Phone Number (optional) 503 805-1979 Email Address (optional) SLIVERTIP6@YAHOO.COM
Today's Date: 6-20-19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Page 94

1 \$100,000 in funding for improvements to Morgan Lake to
2 mitigate the impacts on recreation should the Morgan
3 Lake alternative be constructed. Idaho Power has agreed
4 to this condition as well.

5 I want to say this again: Please do not
6 interpret the City's willingness to agree to
7 mitigations, that I just meant it as support or
8 acceptance of the project. We remain firmly opposed,
9 firmly opposed to the project for the reasons identified
10 in our 2017 comments of the preliminary application.

11 We respectfully ask that EFSC require the
12 mitigation we are seeking in the final order if the
13 project is approved. And while I have only a modicum of
14 the compassion as Peter Barry, just say no.

15 HEARING OFFICER WEBSTER: Next, we have
16 Mr. Larkin followed by Sheri Kanig.

17 MR. GREG LARKIN: Good evening. My name is
18 Greg Larkin. I reside at 59655 Morgan Lake Road. I
19 live on the top of Morgan Lake Road directly across from
20 the entrance into Morgan Lake.

21 The Morgan Lake alternative route of the Idaho
22 Power transmission line would be located approximately
23 120 yards from my residence. I'm in the process of
24 developing my second approved home site on this
25 property, which would be even in a closer location of

Page 95

1 this transmission line in proximity to it.

2 I spent many years as a locomotive engineer
3 for the Union Pacific Railroad. I suffered a permanent
4 disability of hearing loss and tinnitus that forced me
5 away from this career.

6 I can read you a screenshot from Wikipedia on
7 tinnitus: "Tinnitus is the hearing of sound with no
8 external sound present. While often described as a
9 ringing, it may also sound like a clicking, hiss or
10 roaring. Rarely, unclear voices or music are heard.
11 The sound may be soft or loud, low pitched or high
12 pitched and appear to be coming from one ear or both.
13 Most of the time, it comes on gradually. In some
14 people, the sound causes depression or anxiety and can
15 interfere with concentration."

16 I am real bad in the last 3 years. When I
17 left the railroad in '87, I had a testing in 1985, my
18 ears rang at that time 57 decibels. Approximately
19 10 years ago, one ear was at 72 decibels, the other one
20 was at 75 decibels.

21 Now, I have great concerns, and I've been
22 around the transmission lines before where I cannot
23 stand them, and if this is this close to my home. And
24 then to cope with it up there, or to tolerate it, I've
25 done a lot of pruning and thinning of the trees to get

Page 96

1 the wind patterns to different velocities of wind to
2 seek some relief from this, and I've been able to create
3 this type of environment here.

4 Now, the facts of this B2H coming through my
5 property, without it being there, can almost put a
6 person a little over the top that way. It affects me
7 every second of every day. It's a 100-pound drill
8 lodged in their back, to characterize it.

9 If this transmission line were to go through
10 at this location, I would no longer be able to reside or
11 fulfill my lifetime dreams and goal of living here. And
12 I don't have the time nor the resources or anything else
13 to seek the relief I've sought or the little bit of
14 tranquility to deal with this issue. Well, I will leave
15 it at this, and then I'll address some more issues.

16 As far as pertaining to the sound, the static
17 hiss of this line for the peace and tranquility of our
18 lake up there. We have a gas line that goes through,
19 this line and this route will cross this gas line twice.
20 If we have heavy fogs or a rainstorm, that can transmit
21 a spark to the ground and create a fire, the electronic
22 field.

23 Again, I'll repeat myself. The health hazards
24 of this to people in this close of proximity. And the
25 deterioration, even in the ground, the potential

Page 97

1 deterioration in the ground of this gas pipeline. The
2 technology, I don't know, as it goes over, through this
3 route. It had to. There is no longer a route that was
4 the western route that was on the radar and it's
5 disappeared, it's gone away. And viably the effect on
6 our county here, if that route were to go through in
7 that direction, it would most likely have no less impact
8 on our county here, to the residents.

9 I'm not a public speaker. I'll address it
10 further in some written comments. I'll have some
11 assistance on that.

12 I thank you for your time.

13 HEARING OFFICER WEBSTER: Thank you.

14 We have Sheri Kanig, and following we will
15 hear from William Whitaker.

16 MS. SHERI KANIG: Good afternoon or evening,
17 everyone. My name is Sheri Kanig, and I reside at 331
18 Southwest Street in Yreka, California. That is located
19 in the Klamath National Forest in Siskiyou County,
20 northern California. I am not a resident of La Grande
21 but a volunteer and a tourist.

22 I have been a co-owner of a large logging
23 company in the Klamath National Forest for many years
24 and also participated in fire suppression. I guess my
25 issues today are regarding the fire danger because of

TARDAEWETHER Kellen * ODOE

From: Carol <carol2049@gmail.com>
Sent: Wednesday, August 14, 2019 11:56 AM
To: B2H DPOComments * ODOE
Subject: Impact of B2H on forestland public comment

August 14, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

The applicant significantly understates the impacts to employment and forest lands as a result of the proposed B2H transmission line.

I moved to La Grande over 30 years ago to enjoy its forests and the benefits they bring to the local community. The applicant for the B2H claims the clearing of trees for the powerline corridor will have little impact on forestland and thus, not impact local economies. The applicant gives no evidence or data for calculating the economic impact and experts believe their estimates are unrealistically low. In addition, the applicant claims that landowners will be able to use the cleared land for other agricultural purposes. Again, this is unrealistic. Even if the land were suitable to other purposes (and much of it is not), most landowners would have a significant cost in equipment to convert to another form of agriculture. Removing trees and impacting forest land has an economic impact that is much more significant than the applicant indicates.

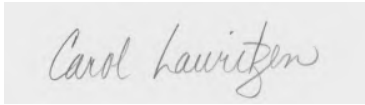
The lives of many people will be negatively affected by the economic impacts of the B2H powerline. It may even lead to a loss of population due to people having to move to support themselves financially. Even for those who stay, the loss of trees will have many negative effects.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.



A rectangular box containing a handwritten signature in cursive script that reads "Carol Lauritzen".

printed name: Carol Lauritzen
mailing address: 801 O Avenue, La Grande, OR 97850
email address; phone (optional): carol2049@gmail.com

RECEIVED

AUG 22 20:9

DEPARTMENT OF ENERGY

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

OAR 340-035-0035
OAR 340-035-0100
World Health Organization

The draft site certificate would result in ODOE and the Energy Facility Siting Council exceeding their authority by using a procedure that allows them to approve exceedances of the noise limits. The action of allowing this impact absent landowner agreement is by definition a government "taking" of private property.

OAR 340-035-0035(l)(b)(B)(i) states: "No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 OR L50, by more than 10 dBA in any one hour-----as measured at an appropriate measurement point-----"

The Oregon Department of Energy and Energy Facility Siting Council are proposing to be able to allow noise levels exceeding the requirements of DEQ over the objection of the landowner. The impacted landowners are not located within the Right of Way and thus are not subject to an order to allow eminent domain actions. The process proposed for taking action on noise complaints deny the impacted public an opportunity to object if the developer acts upon ODOE and the EFSC allowing them to exceed the noise standard. The decision process included in the draft proposed order allows the developer to obtain approval for taking or not taking action to the Oregon Department of Energy. This action would occur after a site certificate has been issued and the contested case and appeal timeframes have expired. See site certificate Condition 1 and 2 on pages 554 through 555.

The action of allowing an exception in the first place is not justified and will not make the development unpermittable. The developer has rejected multiple line variations which would avoid the highly populated areas. In addition, the developer has dismissed the option of burying the line to address impacts.

I object to the procedure in the draft proposed order for responding to noise complaints. This procedure would allow the Oregon Department of Energy to allow exceptions to the noise standard or ignore noise exceedances which is specifically prohibited under state law. Decisions would be made after a site certificate is issued, and in the event the Department of Energy were to allow an exception to the noise standard or develop a plan to authorize action which would not comply with the noise standard, the health and wellbeing of citizens would be jeopardized. In fact, decisions may not occur for several years following the issuance of a site certificate, if one is issued.

No noise exceedances are supposed to be allowed and the procedure being proposed in the Draft Proposed Order does not comply with the statutes or rules relating to noise at previously unused industrial sites. Contrary to the statement on Page 556, Lines 9 through 12, the items in the draft proposed order do not provide for the protection of

health, safety and welfare of Oregon citizens otherwise afforded through compliance with DEQ's noise control regulations.

Absent assurance that citizens will not be exposed to noise exceedances, the site certificate request needs to be denied.



Dexter Lemon
68665 - Hill Lay Ln
Union, OR 97883

RECEIVED

AUG 22 2019

DEPARTMENT OF ENERGY

Kellen Tardaewether, Senior Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@oregon.gov

Comments regarding the failure of the Draft Proposed Order to control and treat Invasive Weeds resulting from the development and operation of the Boardman to Hemingway Transmission line.

NOXIOUS WEED CONTROL

The applicant has not established a weed control plan that will protect the adjacent farm, wetlands, native habitats and forests from infestations due to the transmission line providing for noxious weed introduction and stimulation.

Failure to control noxious weeds will result in a failure to comply with OAR 345-022-0110 as it will result in significant adverse impacts to the ability of the county and private providers within the analysis area to provide those services.

Additional rules impacted with at least one example of impacts which make the development out of compliance with the rule:

-Failure to comply with both OAR 345-022-0070 and OAR 345-022-0060 due to the negative impact invasive weeds have on the ability of the habitat to support wildlife species due to changes in the types of food available to species and the fact that invasive species clog waterways necessary for threatened and endangered fish.

-Fails to comply with OAR 345-022-0090 due to the fact that invasive weeds push out "first foods" species relied upon by native Americans. (See attachment from the Shoshone-Bannock Tribes, pages 5 and 6 identifying concerns with noxious weeds and the need to address them at all locations impacted by the development, as well as the need for vehicle cleaning)

The current plan fails to comply with the following general rule and statute which apply to the entire siting process:

--Oregon Revised Statute 469.507 requires the site certificate holder to not only establish programs for monitoring the environmental and ecological effects of the construction and operation of the facilities, but also requires the certificate holder to perform testing and sampling necessary for the monitoring program per guidelines established by the EFSC or it's designe.

OAR 345-021-0010(1)(u)(E) Identifies the need for establishing a monitoring program to establish the identification of conditions which impact the providers ability to provide required services. (This statute and rule make it clear that the Department of Energy and EFSC have the authority and obligation to establish in site certificate conditions requirements for monitoring of those programs.)

(Attached comments from the Oregon Department of Fish and Wildlife state the need to address the introduction and spread of noxious weeds during the entire life of the project.)

Facts that support my comments regarding the lack of an effective Noxious Weed Management Plan

Construction and ongoing maintenance of the transmission line will introduce and stimulate the development of multiple noxious weed varieties which pose a threat to public and private property for many miles adjacent to the transmission line. Some seeds disperse for hundreds of miles. A failure to identify and treat noxious weeds prior to

them dispersing seeds onto adjacent properties is a critical component of effective treatment to avoid these impacts. State law contained in ORS 569.390 requires the developer to treat weeds prior to seed dispersal, ORS 569.400 provides penalties for failure to do so and ORS 569.445 requires developer to clean machinery prior to moving it over any public road or movement from one farm to another. The site certificate needs to include a monitoring schedule during the spring and summer periods of rapid growth that will address the actual invasive weeds along the right of way. Since different weeds go to seed from early spring through late fall, in order to meet the requirements of the statute, the monitoring plan must address the life cycle of the weeds potentially present at different locations along the right of way to assure weeds are identified and treated prior to seed dispersal. This would require visual inspections to occur based upon the timeframes for specific weeds to develop (Examples attached for leafy spurge and rush skeletonweed which occur in all counties being crossed by the transmission line indicate flowering and resulting seed dispersal occurs from June through November for just these two invasive weeds.) Counties include these on List A rated as invasive weeds requiring attention.

Idaho Power is not planning to treat noxious weeds within a timeframe that will preclude their spread to adjoining property. They are only planning control measures within the Right of Way and 50 feet beyond the ROW in Malheur County (see Appendix B2-2, Section B2.1.3, are only planning mandatory monitoring for the first 3 years of the project, are suggesting monitoring and treatment once a year and propose no ongoing management activities along roadways.

A failure to manage noxious weeds would result in a significant financial burden being placed upon the county and landowners. Noxious weeds have been identified as the most significant threat to agriculture. In addition, introduction and increased numbers of noxious weeds in critical elk and deer habitat would reduce the value of this habitat to wildlife dependent upon it and result in wildlife fatalities through starvation or displacement to less desirable habitat.

The applicant is planning to manage noxious weeds in a manner that will not keep them from spreading within the county and in critical wildlife habitat, and proposing no mitigation for the negative impacts of the spread of weeds within habitat or on agricultural or forest land.

I am also concerned regarding the fact that the final plan will not be completed until after the site certificate is issued. County Commissioners need to be able to assure the citizens that the final plan provides adequate management of noxious weeds.

Recommended site certificate conditions:

- The revegetation plan will require ongoing inspections of the right of way based upon the types of noxious weeds present and be performed in a timeframe that will allow for treatment prior to seed dispersal.
- The monitoring plan will remain in effect for the life of the project including annual monitoring and treatment necessary to address invasive weeds within the ROW and adjacent land identified in the prior year's study sites as having increased occurrence of invasive weeds compared to control sites.
- The County will be provided a copy of the completed weed management plan for county comment and approval prior to it being accepted as final.
- Two sample plots will be identified in each county outside the right of way at locations within ½ mile of the right of way to be monitored for increased invasive weeds. Two additional sample plots will be identified at distances recommended by the Oregon Department of Agriculture from the transmission line based upon

their expertise regarding a distance that would minimize impacts from the transmission line and in similar habitats as a control. In the event that noxious weed infestations increase at a rate greater than similar areas located in sample plots, Idaho Power will provide funding for County staff, equipment and means to treat the area of increased infestations outside the ROW.

- Increased invasive weeds in the area of seed dispersal determined by the Oregon Department of Agriculture, will be presumed to have occurred as a result of habitat impacts of the development. This includes noxious weeds spread from areas outside the ROW, recreational use, grazing, other construction projects, unless the developer provides convincing evidence that the infestation would have occurred absent the development of the transmission line.
- No plan will be acceptable which fails to comply with state law contained in ORS 569.390, 569.400 and ORS 569.445

I encourage you to address the inadequacies of the weed management plan proposed by the developer. A failure to provide for effective, legal management of invasive weeds will preclude the Oregon Department of Energy and Energy Facility Siting Council approval of the site certificate for this development.

Sincerely,



Dexter Lemon

68615 Hill Way LN
Union, OR. 97883

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I doubt it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power’s ASC. If the IPC surveying and engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it’s disquieting to imagine the difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake route rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by a individuals whose remote properties and summer cabins would have been impact by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASCand DPO which will be addresser in a separate comment.


Signature

Name: *Mary Jo Lemon*

Address: *96 Walnut St.
La Grande, OR
97850*

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

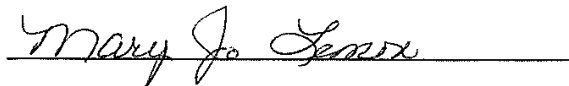
Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: *Mary Jo Lemon*

Address: *96 Walnut St.*
La Grande, OR. 97850

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:


As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.


(Signature)

Name: *Mary Jo Lemor*

Address *96 Walnut St,
La Grande, OR
97850*

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

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Signature ✓

Name: TERRY LEMON.

Address: 96 WALNUT ST.
LAGRANDE, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

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Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.


(Signature)

Name: TERRY LEMON

Address 96 WALNUT ST.
LA GRANDE, OR 97850

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

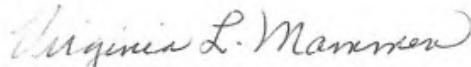
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

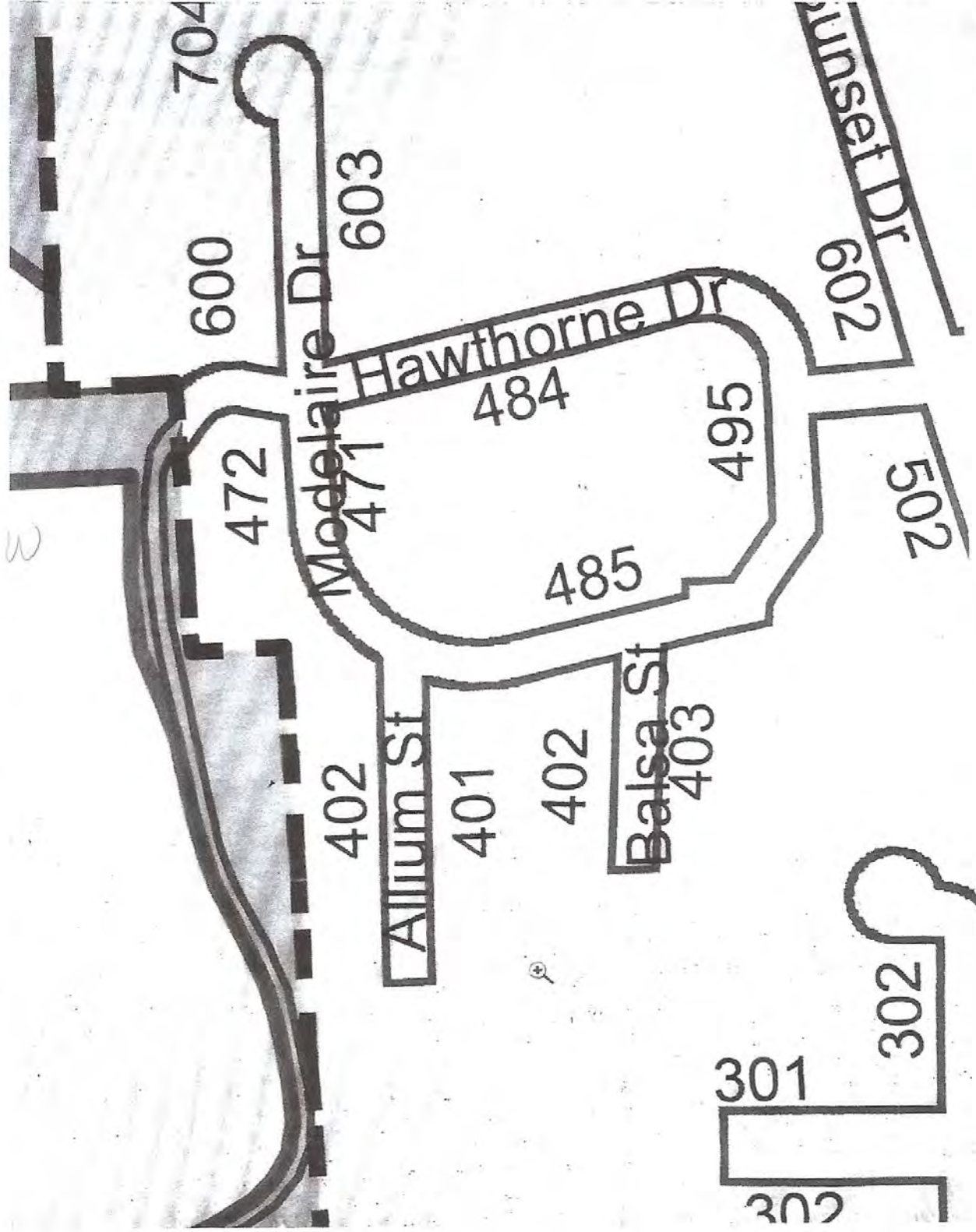


Exhibit 3

Public Services

ORAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

ORAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

ORAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (ORAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (ORAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

ORAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

ORAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



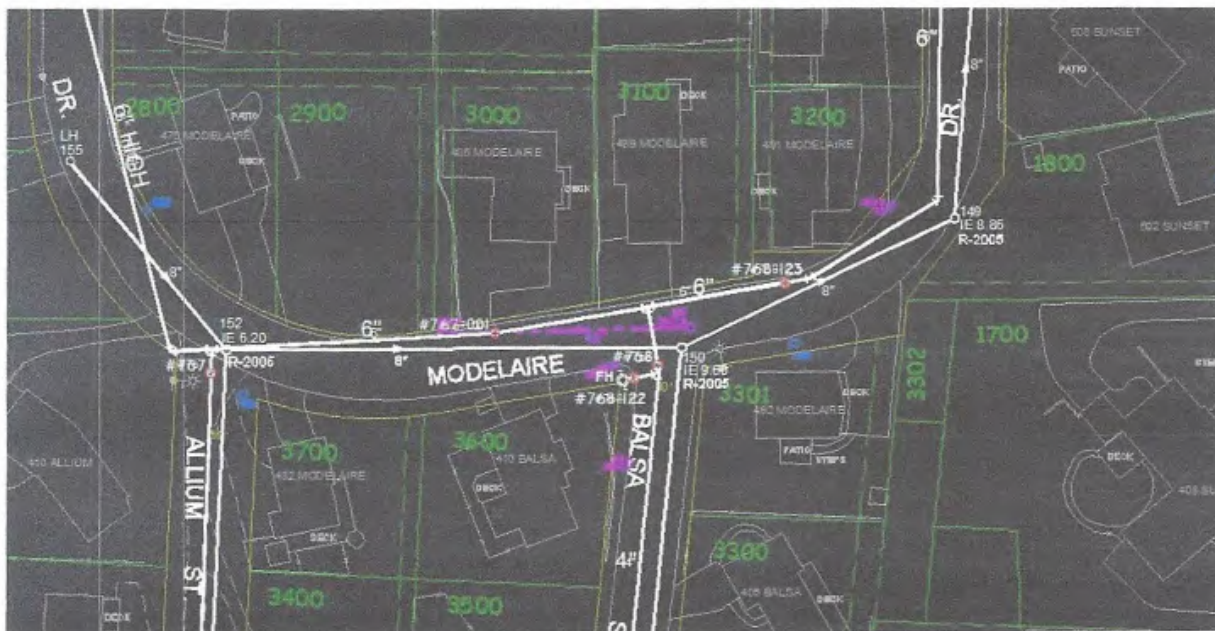
Hawthorne.jpg
150K

Modelaire.jpg
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7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

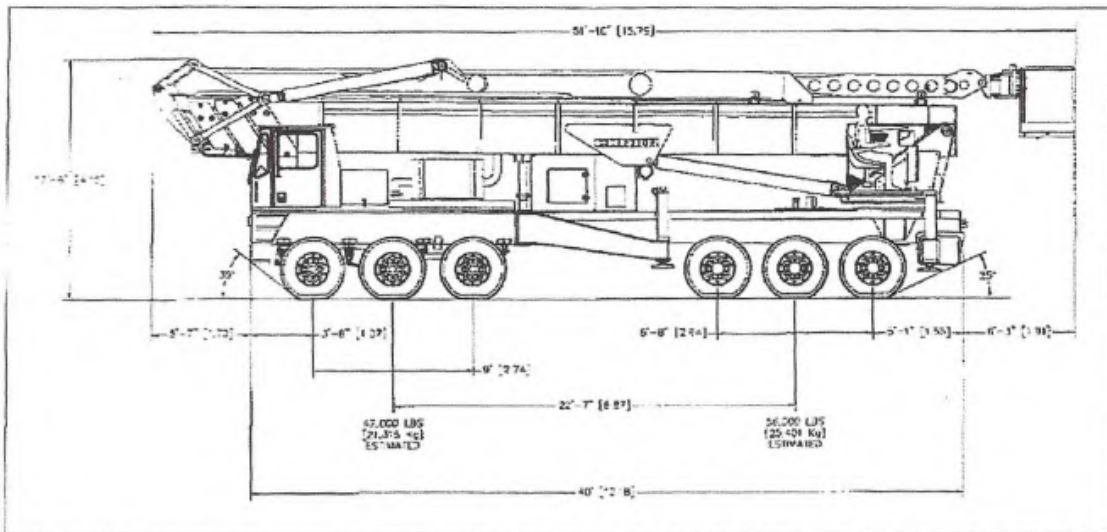


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Transportation and Traffic Plan

Boardman to Hemingway Transmission Line Project

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

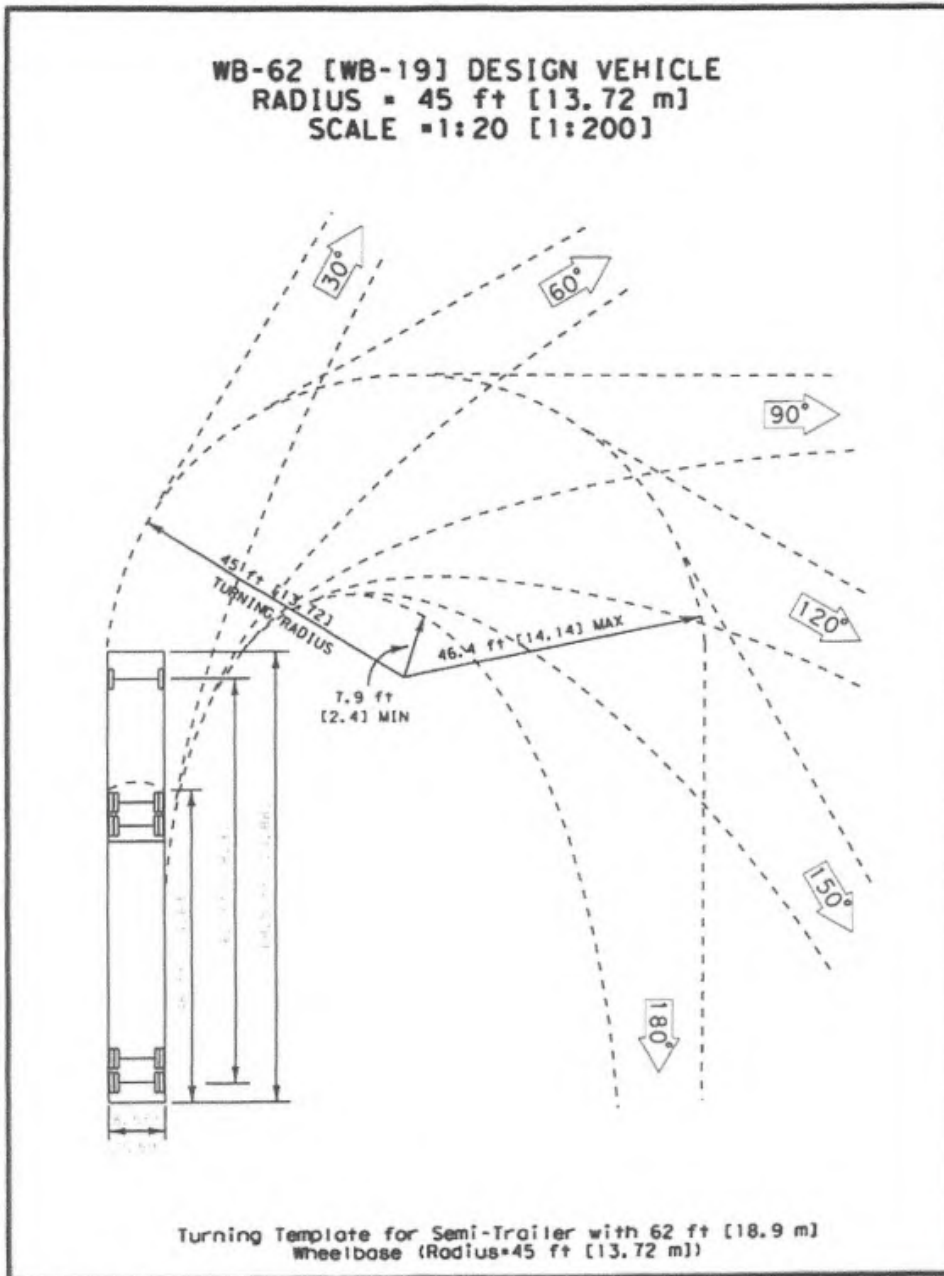


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

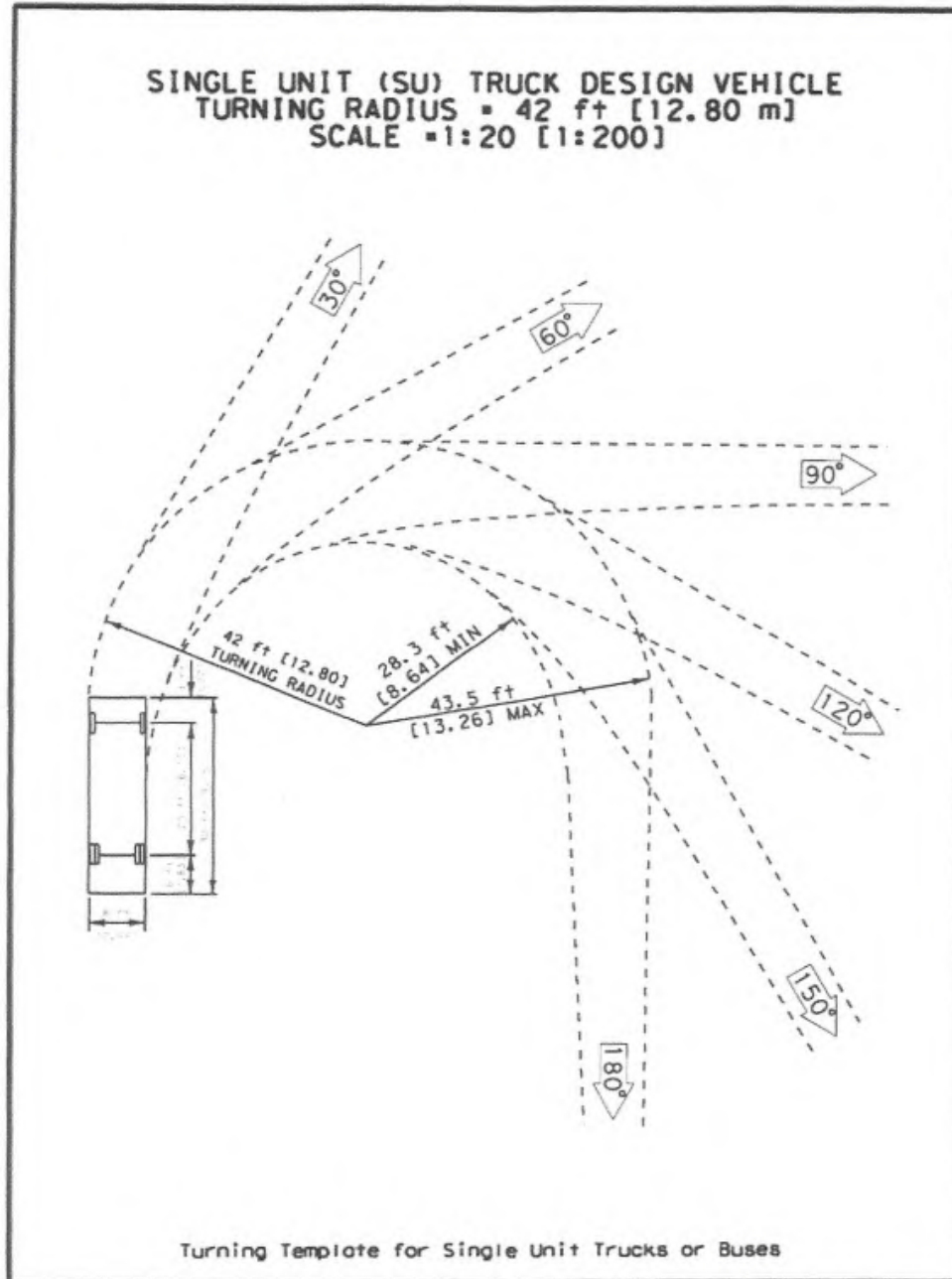


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

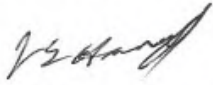
Section 17. TRUCK ROUTES

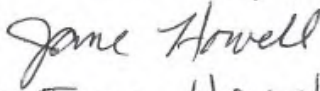
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

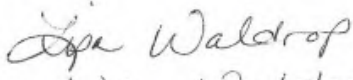
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

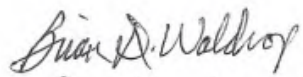
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

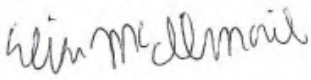
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME James E. Howell II
ADDRESS 482 Modelaire Dr
EMAIL j.howell2@frontier.com

SIGNATURE 
PRINTED NAME Jane Howell
ADDRESS 482 Modelaire DR
EMAIL d.janehowell@gmail.com

SIGNATURE 
PRINTED NAME Lisa Waldrop
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EMAIL ldjw62@gmail.com

SIGNATURE 
PRINTED NAME BRIAN D. WALDROP
ADDRESS 475 MODELAIRE DR.
EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRE DR.
EMAIL mcilmail151@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850
jessiehuxell@live.com

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

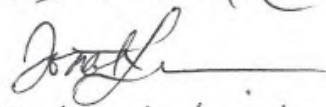

C. Huxell
472 Modelaire Dr. LG, OR 97850
CHRIS Huxell @ EMAIL.COM

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL


Jonah Lindeman
702 Modelaire LaGrande
jlindeman@rpi.ag

SIGNATURE

PRINTED NAME

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Marie Skinner
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208 3rd LaGrande
marieskinner@hotmail.com

SIGNATURE

PRINTED NAME

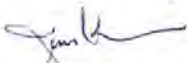
ADDRESS


EMAIL

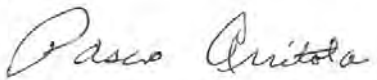
Blake Bars
Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

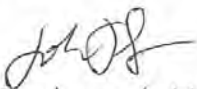
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SIGNATURE 
PRINTED NAME Dale Mammen
ADDRESS 405 Balsa, La Grande, Or
EMAIL dmammen@comi.com


SIGNATURE 
PRINTED NAME Jim Kreider
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EMAIL jkreider@campblackdog.org

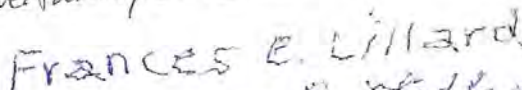
SIGNATURE 
PRINTED NAME Judie Arritola
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SIGNATURE 
PRINTED NAME Pasco Arritola
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SIGNATURE 
PRINTED NAME John Bazuta
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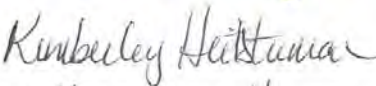
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SIGNATURE 
PRINTED NAME Andrea Galzow
ADDRESS 486 Hawthorne DR, LA Grande
EMAIL foreverfamily33@aol.com


SIGNATURE 
PRINTED NAME Frances E. Lillard
ADDRESS 477 Madelaine Dr. L.G.
EMAIL

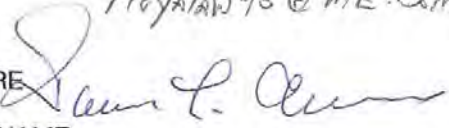
SIGNATURE 
PRINTED NAME Brent H. Smith
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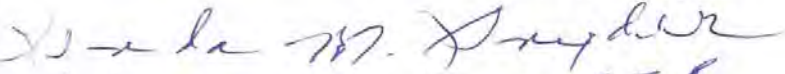
SIGNATURE 
PRINTED NAME M. Jeannette Smith
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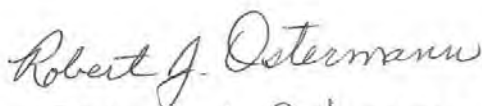
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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EMAIL Kimheitstuman@hotmail.com

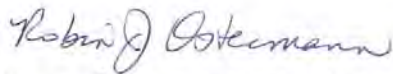
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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
ADDRESS 2909 E. M. Ave,
EMAIL Hoyalan95@ME.com


SIGNATURE 
PRINTED NAME
ADDRESS Dennis L. ALLEN #41- 9637720
410 Balsa Street LaGrande, Oregon 97858
EMAIL N/A

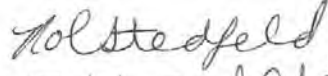
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire
EMAIL

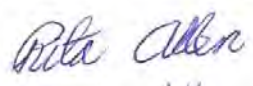
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

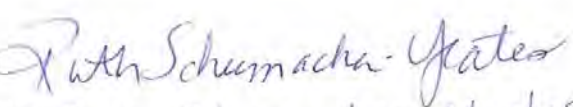
SIGNATURE 
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr La Grande, OR 97850
EMAIL

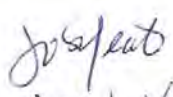
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SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Modelaire Dr
EMAIL jondwhite418@gmail.com


SIGNATURE 
PRINTED NAME Robin Stedfeld
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EMAIL rstedfeld@yahoo.com

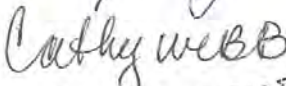
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

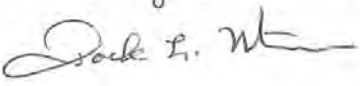
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
EMAIL ruthschumacheryeates@gmail.com

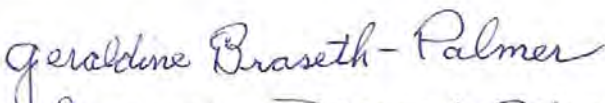

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com


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SIGNATURE 
PRINTED NAME Lois BARRY
ADDRESS P.O. Box 566, La Grande, OR 97850
EMAIL loisbarry31@gmail.com

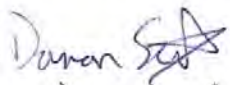
SIGNATURE 
PRINTED NAME CATHY WEBB
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EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gilcrest Dr. LaGrande
EMAIL Buff Martin 27 @GMail .com

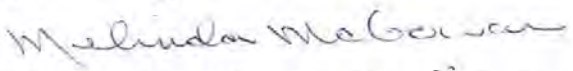
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
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EMAIL 


SIGNATURE 
PRINTED NAME Jean BAPH
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EMAIL Jraph19@gmail.com

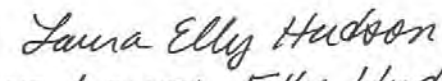
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SIGNATURE 
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
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SIGNATURE 
PRINTED NAME Cory Sexton
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SIGNATURE 
PRINTED NAME Melinda McGowan
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PRINTED NAME Keith D. Hudson
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SIGNATURE 
PRINTED NAME Laura Elly Hudson
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EMAIL ellyhudson@gmail.com

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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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SIGNATURE *Anne G. Cavinato*
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SIGNATURE *Joe Horst*
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SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
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EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97 W Hawthorne Dr, LaGrande, Or. 97850
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SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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SIGNATURE *Bert R. Freewing*
PRINTED NAME Bert R. Freewing
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SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
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SIGNATURE *Robin L. Maille*
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SIGNATURE *Bruce C Kevan*
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SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
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EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.


In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

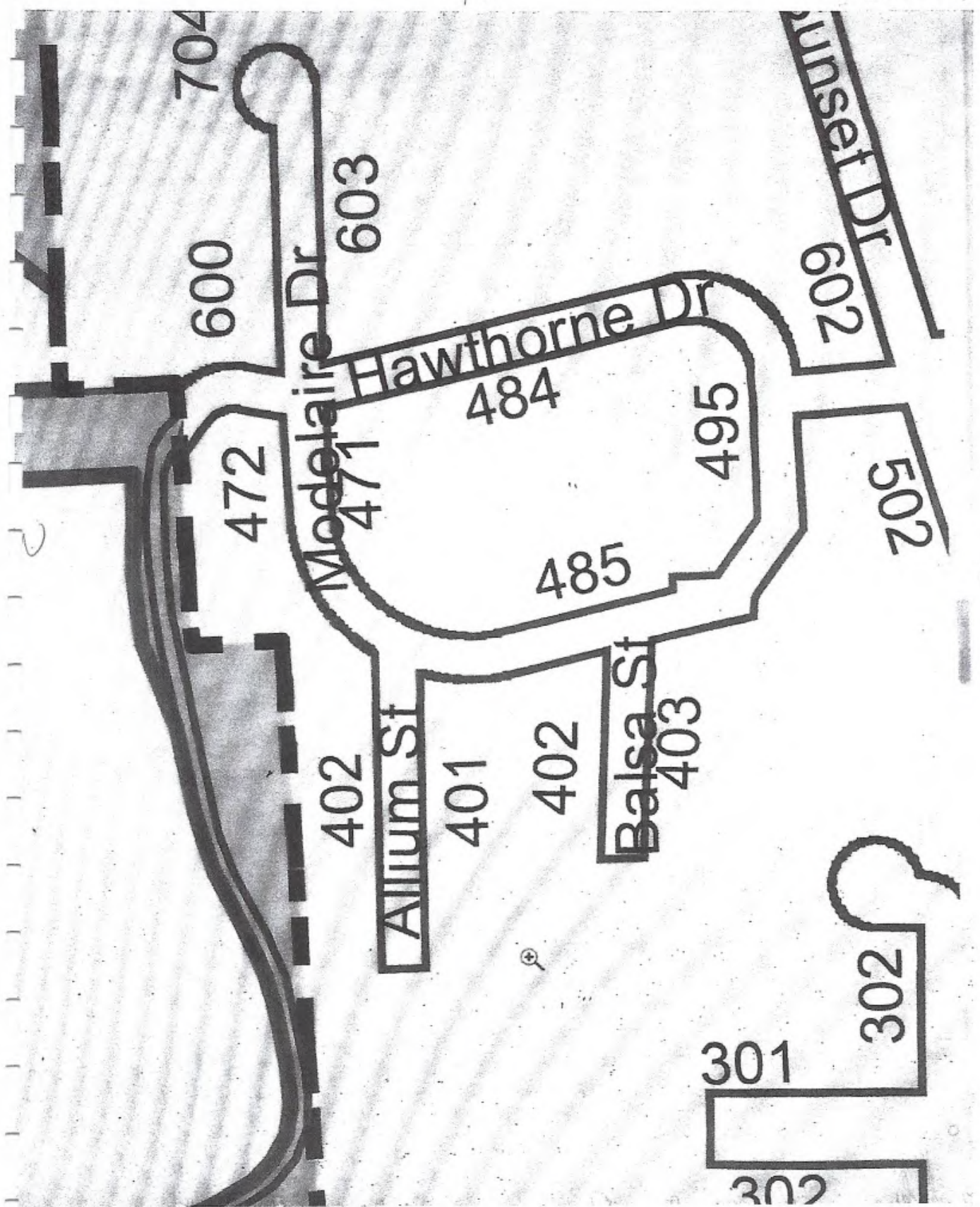
Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1



N

5

11

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4a

8/5/2019

Oregon Secretary of State Administrative Rules

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

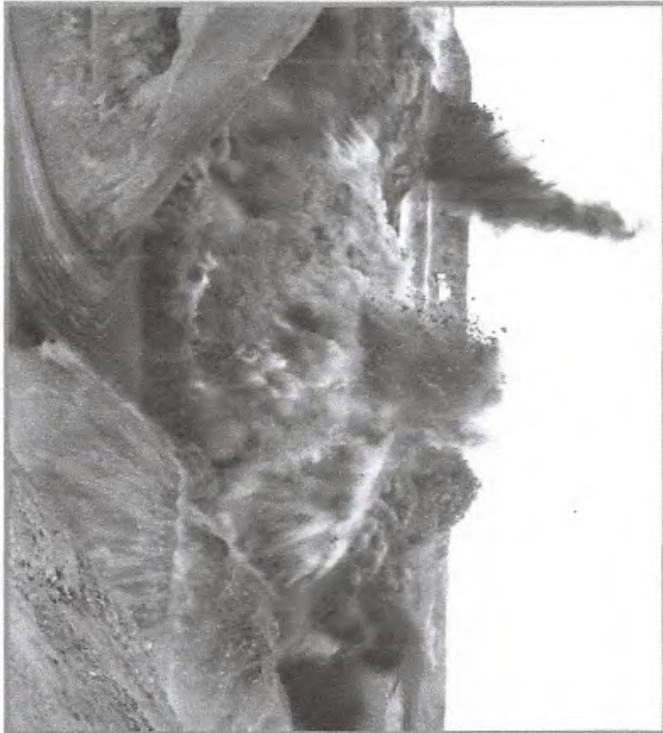
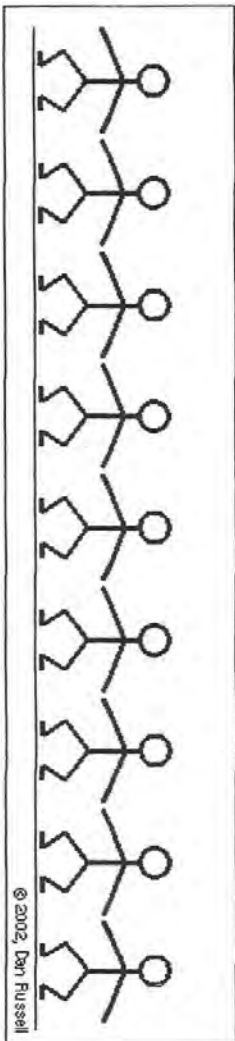


Exhibit 5b

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

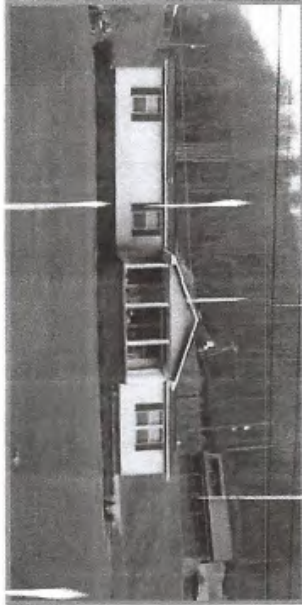
Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

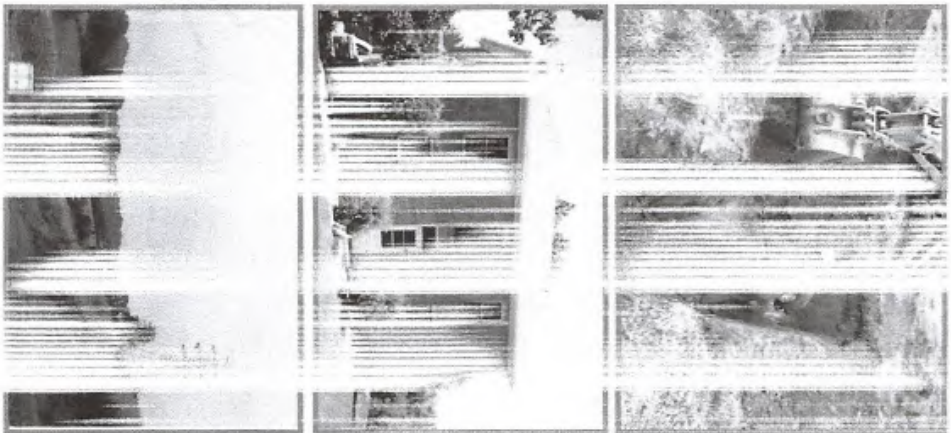
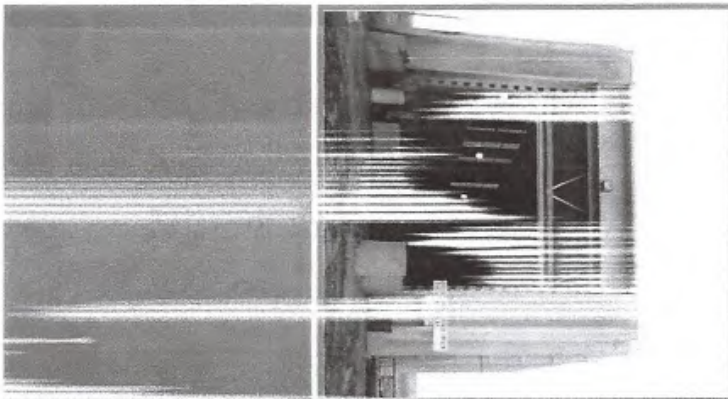
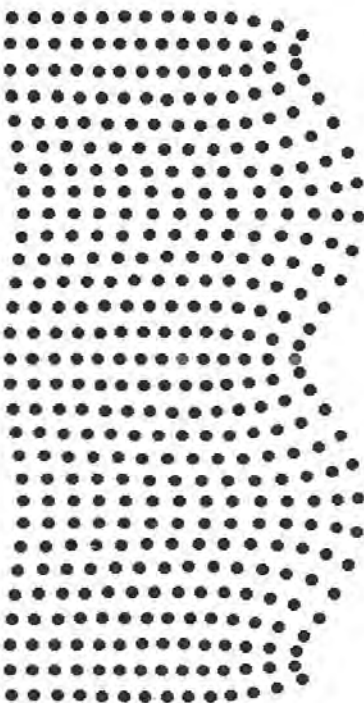


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

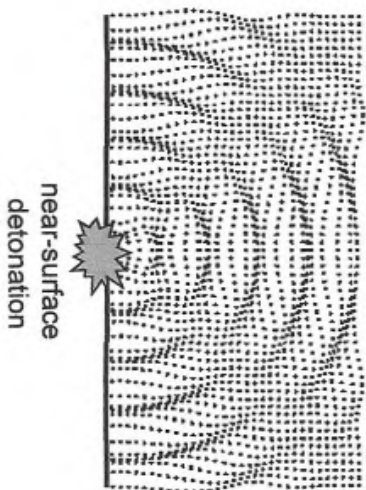
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

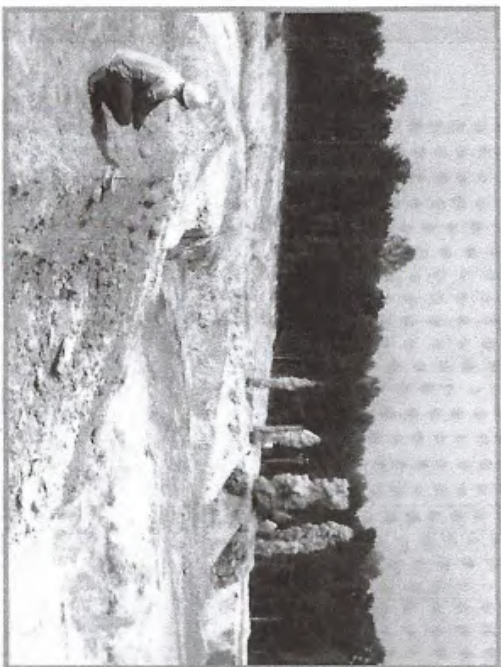
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or inaudible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

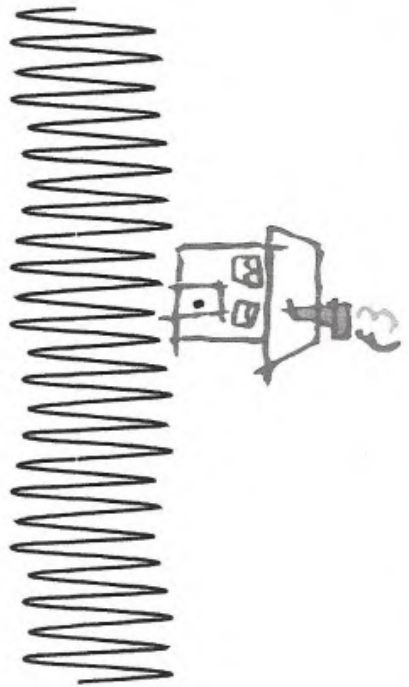
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

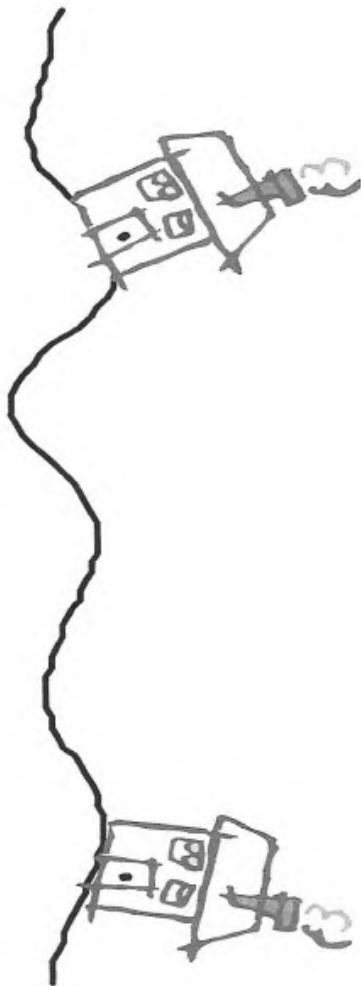


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



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A noisy problem - Harvard Health

Exhibit 16
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Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



(<https://medcenterblog.uvmhealth.org/>)

UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org/>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

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acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 1012

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate



Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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Pages

Additional Resources & Tools

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[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

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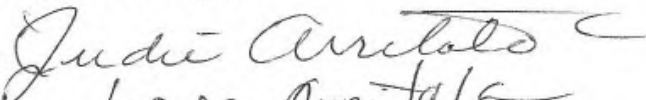


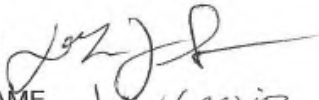
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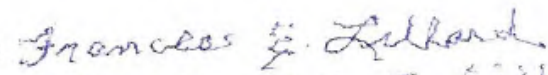
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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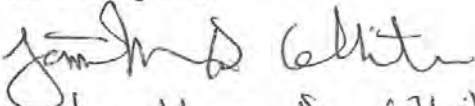
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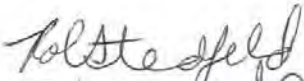
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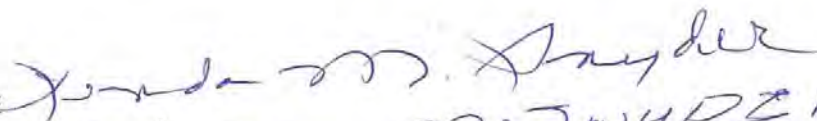
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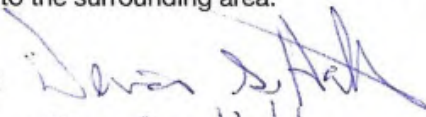
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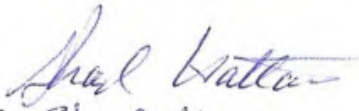
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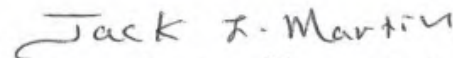
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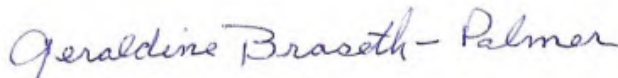
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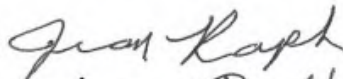
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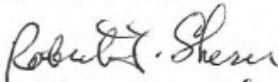
SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL rmaille@icloud.com

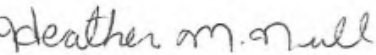
SIGNATURE *Carol Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Bekelen Lane La Grande OR.
EMAIL carolsummers1938@gmail.com

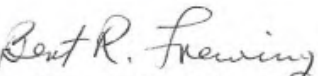
SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 4th Street - LaGrande - OR 97850
EMAIL

SIGNATURE *Gerald D. Juniper*
PRINTED NAME Gerald Darwin Juniper
ADDRESS 406 4th St. LaGrande, OR. 97850
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE 
PRINTED NAME Robert J. Sherer
ADDRESS 97w Hawthorne Dr, La Grande, OR 97850
EMAIL asherer@frontier.com.

SIGNATURE 
PRINTED NAME Heather M. Null
ADDRESS 492 madelaire Dr. La Grande, OR 97850
EMAIL hnull@coni.com

SIGNATURE 
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

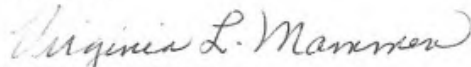
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

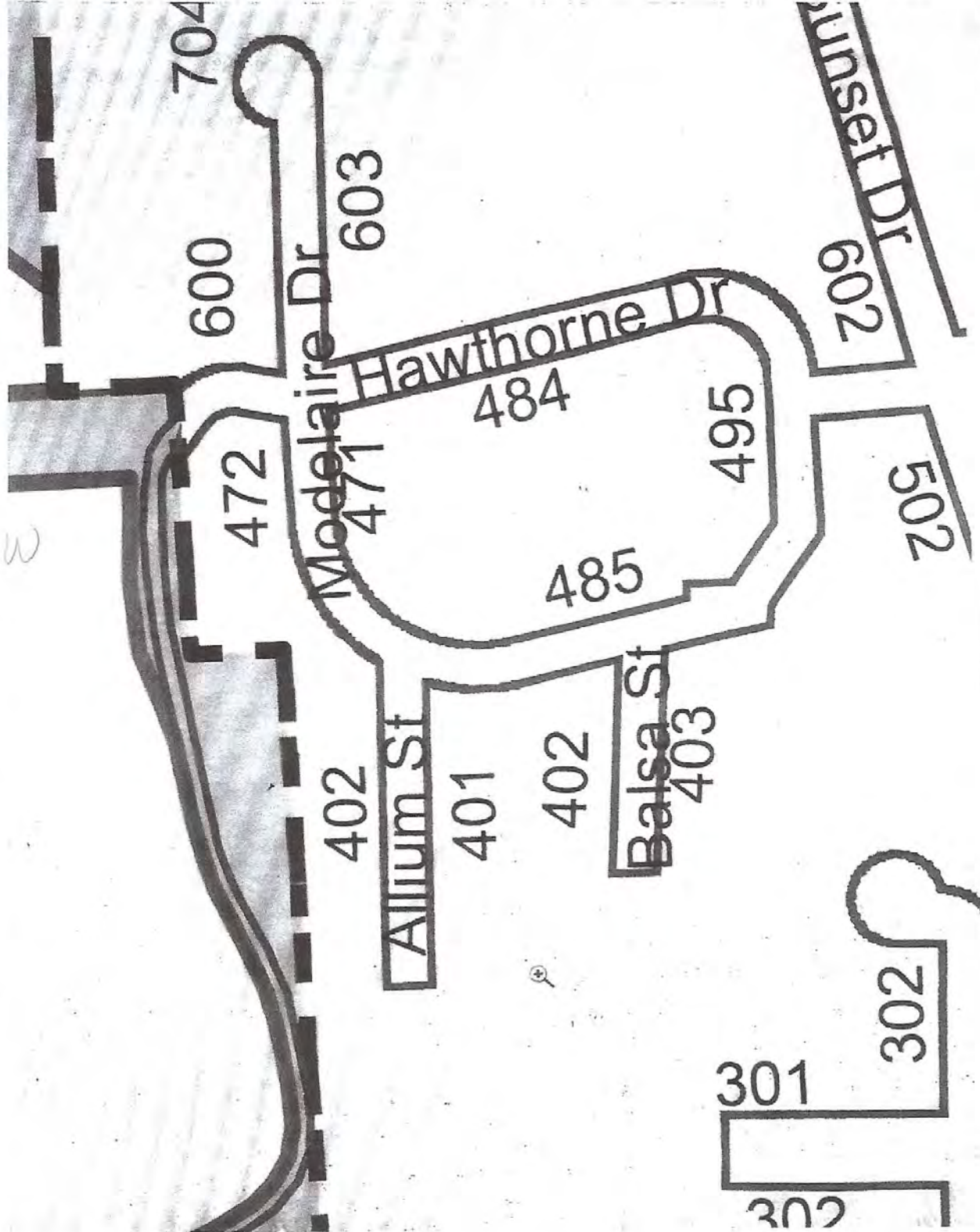


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

7/25/2019

Gmail - Modelaire Roadway Specifications

Exhibit 6



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



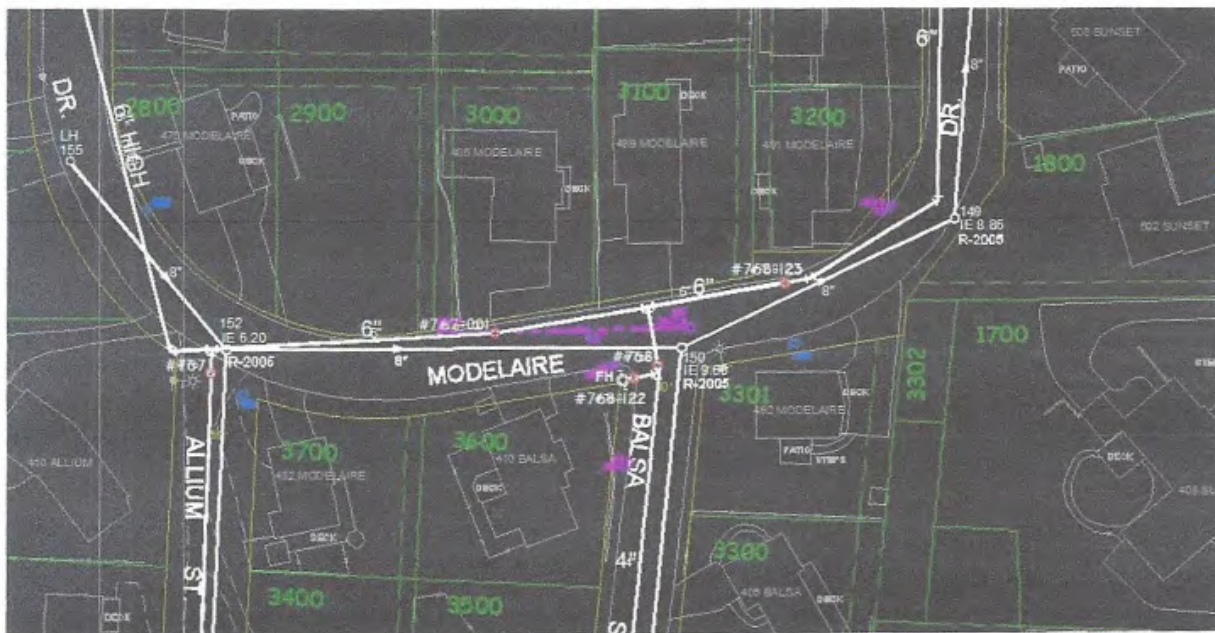
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

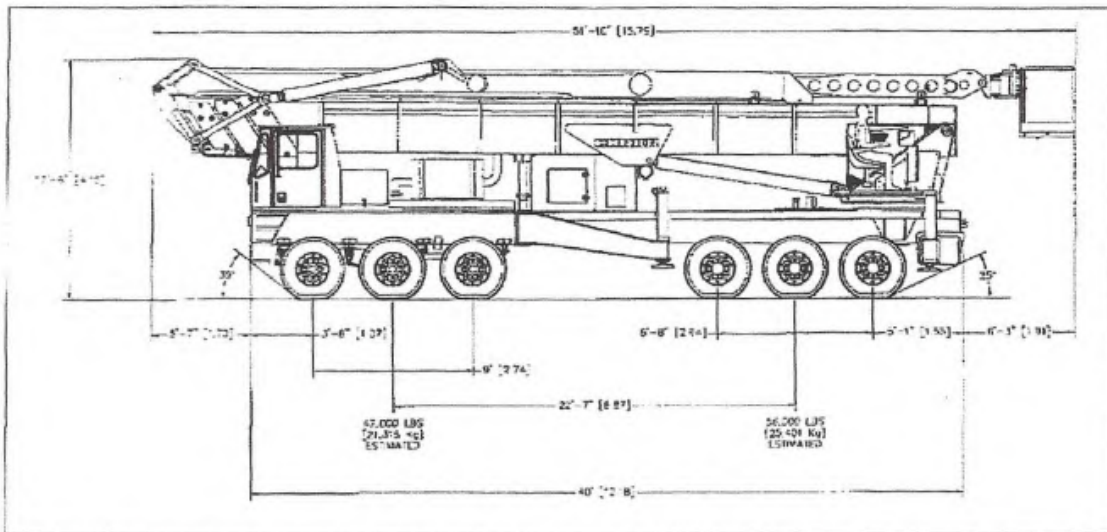


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
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ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Transportation and Traffic Plan

Boardman to Hemingway Transmission Line Project

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

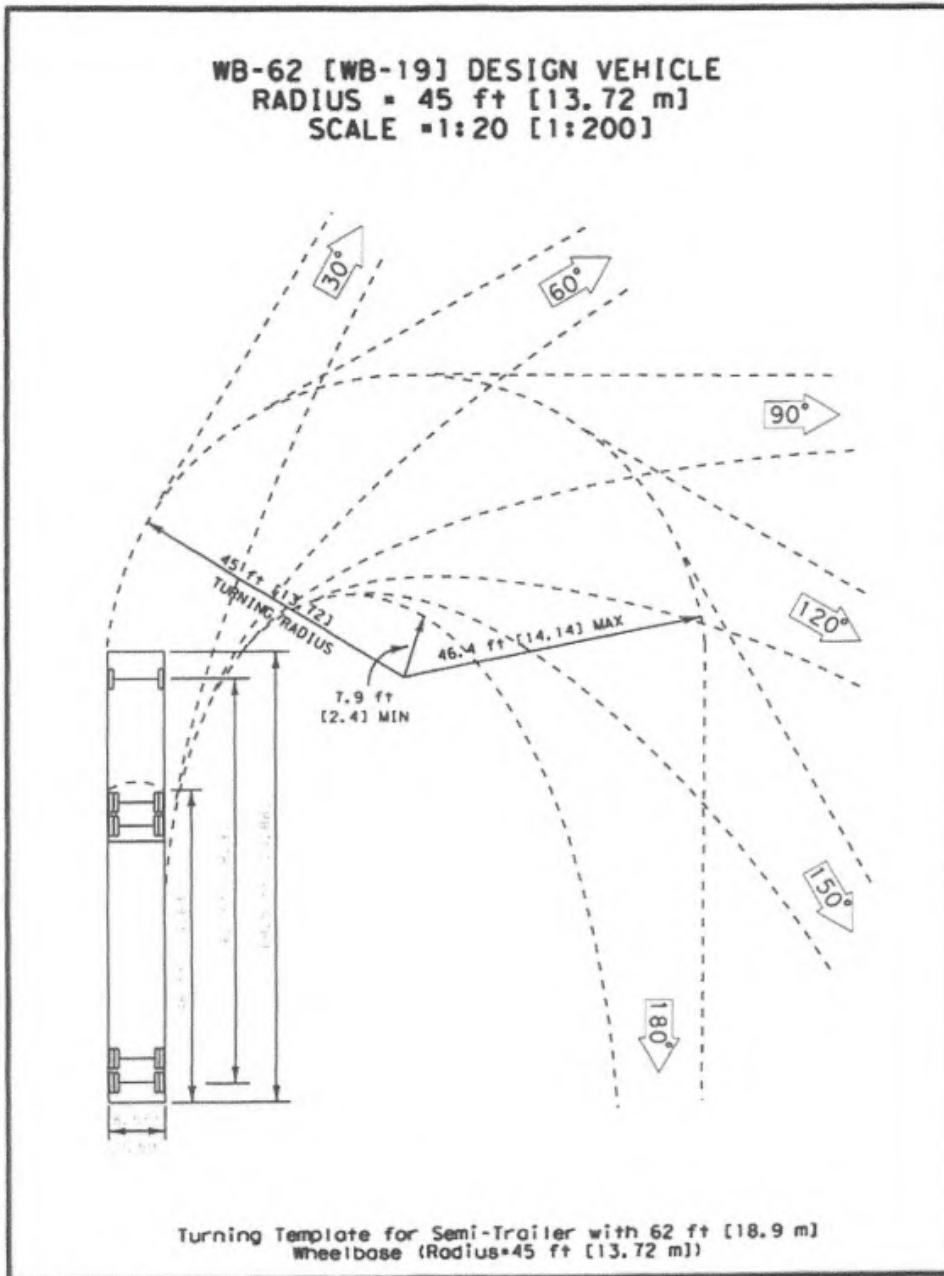
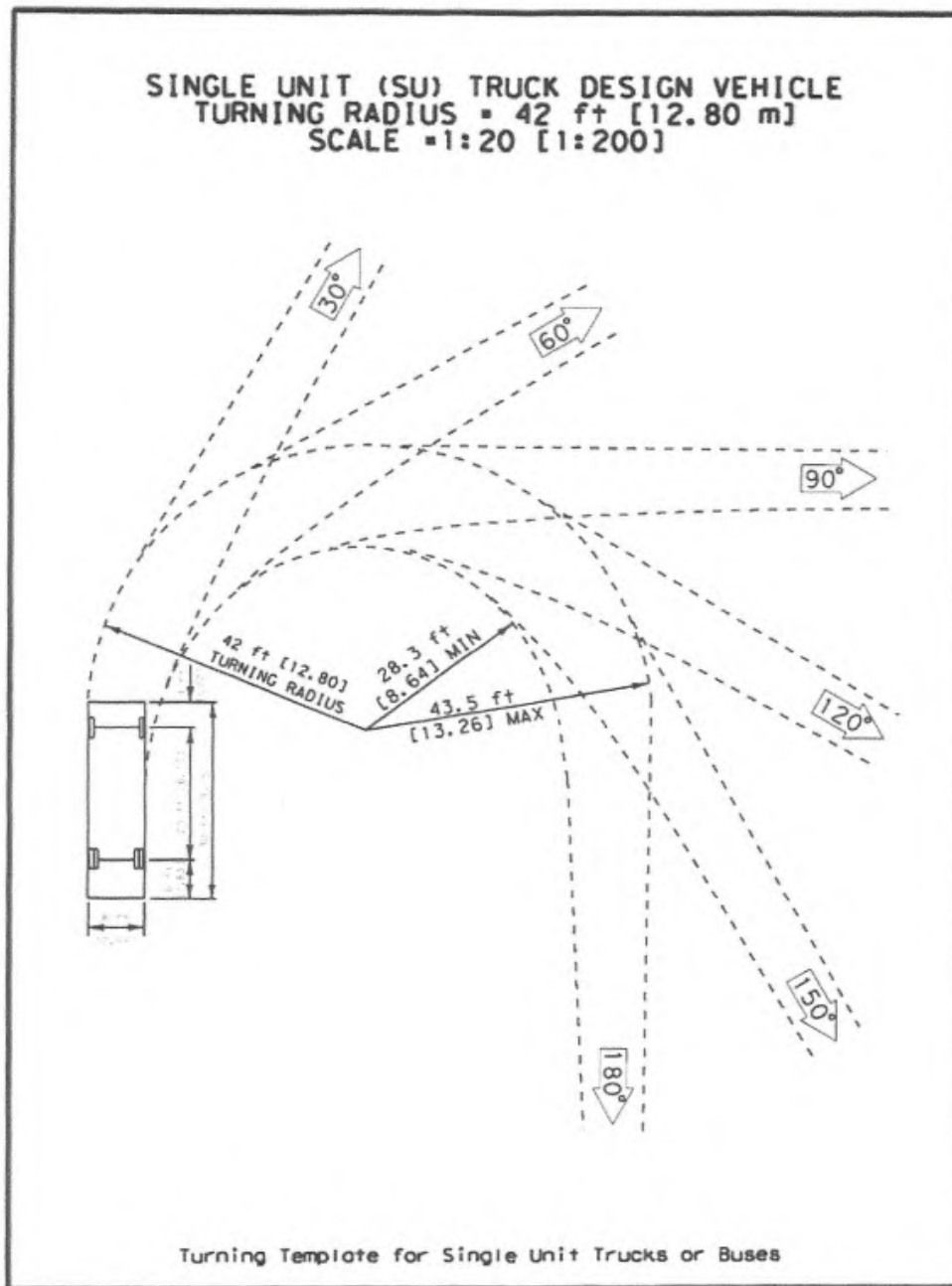


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14



CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009

Exhibit 15

AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH; AND DECLARING AN EFFECTIVE DATE

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

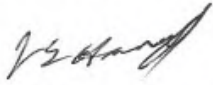
Section 17. TRUCK ROUTES

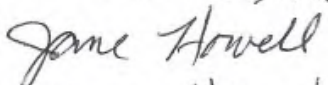
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

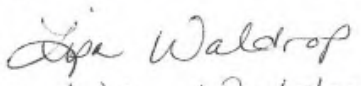
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

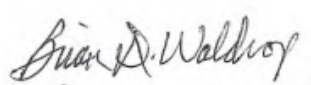
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

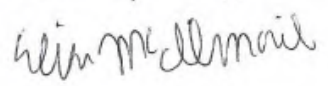
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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SIGNATURE

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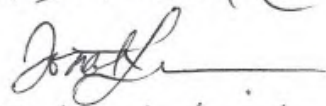

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Jonah Lindeman
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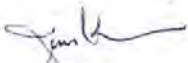
ADDRESS


EMAIL

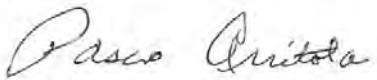
Blake Bars
Blake Bars
1101 G Ave La Grande
blakebars@gmail.com


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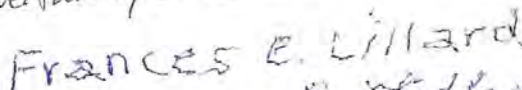
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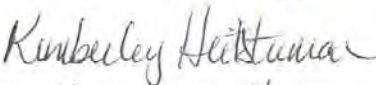
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PRINTED NAME Frances E. Lillard
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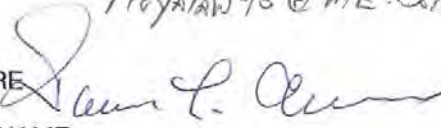
SIGNATURE 
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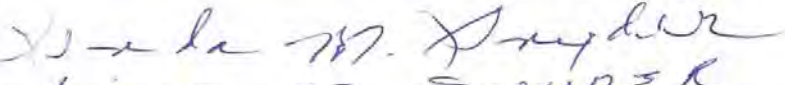
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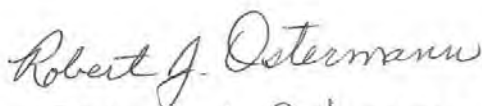
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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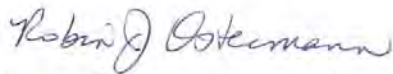
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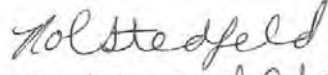
SIGNATURE 
PRINTED NAME Linda Snyder
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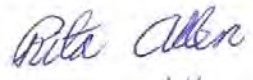
SIGNATURE 
PRINTED NAME Robert J. Ostermann
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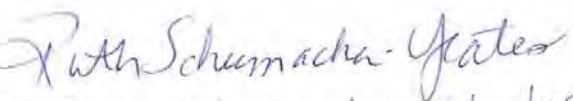
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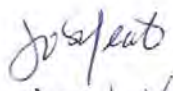
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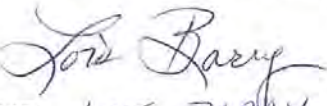
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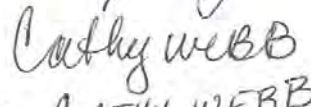
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PRINTED NAME Rita Allen
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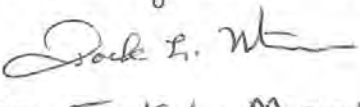
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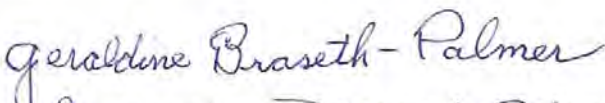

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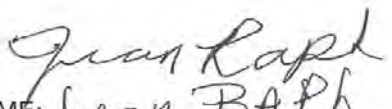
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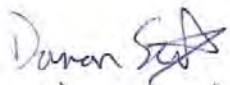
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PRINTED NAME Jack L. Martin
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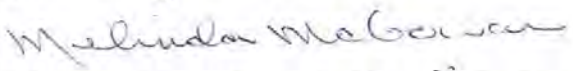
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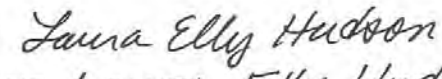
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SIGNATURE 
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SIGNATURE *Gary D. Pierson*
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SIGNATURE
PRINTED NAME
ADDRESS
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SIGNATURE *Merle E. Comfort*
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SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
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ESTERSON Sarah * ODOE

From: Meredee Lloyd <bluemtnchickadee@gmail.com>
Sent: Wednesday, August 21, 2019 10:48 PM
To: B2H DPOComments * ODOE
Subject: B2H comment

August 21, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301
Email: B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

Morgan Lake Park, analyzed as part of the Morgan Lake Alternative - (Attachment T-3, Table T-2, p. T-3-2; Table T-3-1, p. T-13) and Summary of Impacts, pp. T-27-28, 43, (T-4-51-56), inaccurately describes features of this La Grande city park itself and severely underestimates the permanent impact of development on this unique park. See OAR 345-021-0010 (1) (T) (A) (B) (D) & OAR 345-022-0100

Morgan Lake Park is an important landscape primarily because of its unique designation status as a city park, rareness, and special qualities per OAR 345-021-0010(1)(t)(A) Attachment T-3, Table T-3-1 (p. T-13) Page 62 (T-57) refers to "extensive work in the siting study of the Morgan Lake Alternative."

Unfortunately, the report of Morgan Lake Park reveals major inaccuracies and false assumptions about the nature of this city park, thus putting into question of any "extensive work in the siting study of Morgan Lake Alternative". On page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, developed with primitive campsites and fishing docks. In reality, Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300' of Morgan Lake and covers 27 acres. In their application, Idaho Power omits any references to Twin Lake. Twin Lake is undeveloped, a wildlife and bird sanctuary, an important stopover for migrating water fowl, and home to nesting bald eagles.

Page 156, (T-4-6) purports to be a map of Morgan Lake Park, but the map legend only has a purple cross hatch covering Morgan Lake, while leaving the rest of the park unaccounted for. The park is much more than this body of water. Twin Lake and the surrounding land that also is the Morgan Lake City Park, totals 204 acres, and is left unmarked on this map.

2) b. A specific example of unsupported conclusion:

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..."

Page 146 (T-4-47) "The landscape character is natural appearing. Scenic integrity is high as the human developments are harmonious with the landscape."

Page 49 (T-44) "Vegetation will block views of the towers from most locations in the park."

In reality, one tower would dominate the entrance to the park, all 130' in plain view. Within the Park, the trees bordering the lake are no more than 80' high. 130' transmission towers will rise more than 50' above those trees, dominating the current landscape.

Exhibit W Retirement, 3.1 Estimated Useful Life:

Idaho Power claims that the transmission line will remain in service for perpetuity. There are no references or hard data to support this optimistic estimate of essentially "forever". This same argument is being used for the "Sams Valley Reinforcement Projects" by PacifiCorp. Over the last 50 years, wind power, solar power, local distributed energy, including new battery storage will certainly affect long distance transmission lines. The advances of renewable and distributed energy systems are making B2H obsolete before the possibility of it ever being built. Cancellation of 500-kV projects such as Cascade Crossing and Colusa-Sutter in California, are specific illustrations of changes being made by forward thinking executives.

Exhibit W Retirement and Financial Assurance Condition 2: A bond or letter of credit purpose, is to protect the public from the RISK of not having the site restored to a useful non-hazardous condition. EFSC is recommending that the Council approve the assumption that the risk to the public is ZERO (0) for 50 years, then remain under-insured for the next 50 years. If EFSC and IPC feel that the risk is zero, then the cost of the bond should be low. **The risk should be moved to the bank, not forced upon the public.** The fact that it may have an operating life of 100 years does not remove the risk that it is there and would need removal and ROW recondition.

I urge the Commission to deny this application for a site certificate. Idaho Power has yet to provide credible evidence to support each of its conclusions of "no significant impact". Furthermore, the financial risk and burden this project will place on the public is beyond measure.

Signature

Name: Meredee Lloyd

Mailing Address: 604 3rd St., La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Courtney Loomis <lynx@eoni.com>
Sent: Thursday, August 22, 2019 10:51 AM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for Boardman to Hemingway Transmission Project
Attachments: b2h_comments_loomis.pdf

2019 August 22

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst Oregon Department of Energy
550 Capitol St NE
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

This is in regards to the Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018, Draft Proposed Order 5/23/2019.

I have been a resident of the Grande Ronde Valley for over 19 years. I moved here for retirement because of the incredible scenic beauty of the area and because of the strong presence of the cultural arts in La Grande. EOU theater and music performances, the Eastern Oregon Film Festival, the Ladd Marsh Bird Festival, and other events that make this valley a wonderful place to live.

The Grande Ronde Valley is an agricultural valley, and while there are some substantial industrial installations near to La Grande, the valley is aesthetically gorgeous and an inviting place to call home. In many ways La Grande reminds me of other towns in Oregon that draw tourists and residents because of their beauty and quality of life, towns such as Sisters, Ashland, Joseph, and other towns that care about the livability assets of their community.

In searching for a route for a major power line corridor, the Bureau of Land Management carefully considered various route options and selected the "Glass Hill Alt" route as having the best balance between minimal environmental impact and serving the need for a power line corridor. Idaho Power chose to ignore that recommendation and is applying for a Site Certificate to build the power lines on a route, the "Mill Creek" route, that would have a destructive impact on the town of La Grande and the Grande Ronde Valley in general.

I assume that Idaho Power chose this route because they would save money relative to the recommended Glass Hill Alt routing. However, there is a huge external cost with the Mill Creek route, and that cost would be borne by the people and local governments of the Grande Ronde Valley, an ongoing cost that would be paid by current residents and future residents forever.

The Mill Creek route would permanently damage the aesthetic qualities of the valley, which over time will reduce property values and property tax revenues. The Mill Creek routing will also reduce La Grande's attractiveness to businesses that offer high-paying jobs, where quality of life is an essential selling point for attracting highly skilled and professional labor. La Grande is well positioned to continue to increase the amount of tourism to the area, with its strategic location on a major transportation route (I-84) and the ongoing increase in the presence of cultural arts and events.

The drawing power of the Grande Ronde Valley to tourists and to high-paying businesses would be severely and permanently damaged by having a huge industrial installation (the transmission lines of the Mill Creek route) that would deeply scar the landscape view across the entire valley. These power lines would be a statement to all visitors that La Grande is an industrial town that has no regard for its own intrinsic beauty.

There are many people currently living in a location that is near to the Mill Creek routing; these people would be paying a huge personal cost with the inevitable drop in resale value of their homes, not to mention the loss of the beauty of the viewshed of their homes for as long as they live there. Many people in the Grande Ronde Valley have held their homes in the family for generations; it is unacceptable to impose the blight of these power lines upon long-term residents and their future generations.

The Energy Facilities Siting Council should prevent the disaster of the Mill Creek power line corridor for the current and future residents of the Grande Ronde Valley, and must deny the Site Certificate that is being sought by Idaho Power.

Courtney Loomis
65155 Grays Corner Rd
Cove, OR 97824

e-mail: lynx@eoni.com
phone: 971-300-4112

2019 August 22

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c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St NE
Salem, OR 97301

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Courtney Loomis
65155 Grays Corner Rd
Cove, OR 97824

e-mail: lynx@eoni.com
phone: 971-300-4112

TARDAEWETHER Kellen * ODOE

From: Carrie Caselton Lowe <carriecaseltonlowe@gmail.com>
Sent: Monday, August 19, 2019 7:10 AM
To: B2H DPOComments * ODOE
Subject: B2H Comment
Attachments: B2H Comment - Carrie Caselton Lowe.pdf

Carrie Caselton Lowe
redtwig.weebly.com

August 19, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

ISSUE STATEMENT:

1. I strongly encourage the B2H Transmission Line Project to coordinate efforts with the Oregon Bee Project especially as it relates to improving pollinator insect habitat and reducing pesticide exposure to pollinating insects. As a trained insect ecologist and volunteer for the Pacific Northwest Bumblebee Atlas and the Oregon Bee Atlas, I am invested in improving bee health, especially in the region where I live. The Oregon Bee Atlas is part of the the Oregon Bee Project. In response to major declines in pollinator populations, the Oregon State House Bill 3362 (<https://olis.leg.state.or.us/liz/2015R1/Downloads/MeasureDocument/HB3362/Enrolled>) was initiated in 2017. The Oregon Bee Project was one result of that House Bill and is a cooperative effort between the Oregon Department of Agriculture (ODA), the Oregon State University (OSU) Extension Service, the Oregon Department of Forestry (ODF), and a diverse set of stakeholders who are actively engaged in caring for our bees. Together these collaborators and supporters are launching several initiatives to maintain and enhance bee health in Oregon. The Oregon Bee Project has a mission of: "Bringing together Oregonians around a science-based strategy for protecting and promoting wild and managed bees through education, pollinator-friendly practices, and research." It is essential that the B2H Project include pollinators in their scope of impacts. The B2H Project would result in a loss of pollinator habitat. If the B2H Project should proceed, the project has a responsibility to mitigate the loss of pollinator habitat by including habitat restoration that includes careful selection and planting of plants known to be habitat, nesting sites and floral resources included for pollinating insects. I strongly encourage B2H project to monitor insect populations and the impacts of the B2H Project via pollinator surveys no matter which alternative is chosen.
2. The creation of a corridor through the middle of forest land is stated as a benefit to wildlife. There are multiple studies showing the negative impacts of creating corridors such as this as it provides opportunities for raptors and other predators to access prey. This should be widely known by the developers given the concerns they are required to address to attempt to minimize the use of transmission structures by raptors and other birds.
3. The entire section on Forested Land Analysis needs to be rewritten to accurately reflect the true impacts of this development including negative impacts to adjacent land and

adjacent landowners such as impacts from the use of chemicals to control vegetation, erosion from development of the transmission line and roads, transmission lines are identified in multiple studies as a primary source of invasive weeds and it appears from this section that the developer plans to only spray for weeds once a year. That will assure that there will be multiple problems with invasive weeds as a result of this transmission line.

4. I am also concerned regarding the number of nests that will be destroyed by this transmission line as well as the lack of completed work indicating a commitment to identifying, addressing and mitigating for the wildlife impacts this development will have. The area mentioned above, in Union County, is known to serve as an important location for federally protected migratory birds. While the Oregon Department of Energy can legally refuse to address federally protected species under the threatened and endangered species rules, they are required to address them in the habitat mitigation rules. The developer has made literally no effort to identify and protect federally protected species under OAR 345-022-0060 or 0070. This is not an optional activity according to the opinion received from the Oregon Legislative Council.
5. Morgan Lake Route 3 crosses Rock Creek approximately 2.5 miles upstream from the Grande Ronde River - just below where Sheep Creek flows into Rock Creek. Here is where the best water quality and the coolest water temperatures exist during the heat of summer. And here is where Route 3 will cross. Rock Creek is not a Chinook Salmon spawning habitat. However, the lower six miles of Rock Creek have been identified as important habitat for both Steelhead and Chinook Salmon smolts.
6. Twin Lake, at 4,100 feet elevation, supports one of the most diverse waterfowl nesting communities in the Blue Mountain Ecoregion. Most unusual is the nesting by: Ring-necked Ducks, Red Head, Rudy Duck, Blue-winged Teal, Shoveler, and Pied-billed Grebe. The species diversity surrounding this wetlands anomaly at 4100 feet elevation, is enhanced by the natural basalt rim rocks forming the south and west sides of the lake. Here the vegetation is a diverse mixture of native shrubs, aspen, black Cottonwood, and Ponderosa pine. These surrounding shrub and tree communities support as rich an assortment of both migratory and nesting passerine birds as can be recognized across the Blue Mountain Ecoregion. Also frequenting these habitats are two bird species identified on the Oregon Department of Fish and Wildlife – *Sensitive Species List*: Great Gray Owl, and White-headed Woodpecker.
7. In 2013 a Pair of Bald Eagles constructed a nest in the top of a large Ponderosa pine at the west edge of Twin Lake where they fledged their first two young. GPS coordinates (Degrees, Minutes, Seconds) for Nest-1 are: N 45°, 18', 06.0" by W118°, 08', 44.2". Route 3 places a Tower 580 feet from Nest 1. The pair of Eagles has since built Nest-2 at N 45°, 17', 45.9" by W118°, 08', 54.4". Route 3 places a Tower 0.31 miles east of Nest 2. Route 3 places the transmission line between the two nests. Here I will point out that

IPC's Avoidance Criterion Identifies Bald Eagle Nests as High Avoidance – recognizing a Buffer of one mile. The Morgan Lake Route 3 demonstrates a disregard for these Bald Eagles. Here at the ridge-top, Morgan Lake supports an entire ecosystem of scale where the fall hawk migration follows south up the monocline ridge. Here, watching Bald Eagles and their interaction with fishing Ospreys is a popular nature spectacle. If the Morgan Lake Route 3 is built, the spectacle will become a loud “crackling” transmission line towering over Morgan Lake Park.

8. South of Morgan Lake, Route 3 advances southeast up the Glass Hill Monocline and into renowned high-density elk breeding grounds. Here in the upper reaches of Sheep Creek are numerous sedge meadow springs that are used heavily as elk wallows. All “muddied-up”, large mature bulls now strut out onto the open bunchgrass slopes to breed on Cowboy and Sheep Ridges. Landowners here have a long history of promoting the Elk Resource as a viable economic and recreational endeavor. Oregon's Governor Pierce and Supreme Court Justice William O. Douglas once made this habitat their personal “getaway.” One neighbor has made land acquisitions and established conservation easements to consolidate and preserve the native integrity of the area. The Rocky Mountain Elk Foundation is a cooperator in these efforts, as is the case with the Eastern Oregon University's Rebarrow Forest Project.
9. The developer did not do current surveys for wildlife to provide the necessary evidence to show he was compliant with OAR 345-022- 0060, but also did not use easily accessible studies completed by and for ODFW during the compilation of information for issuing a site certificate. The nest surveys completed for the Antelope Ridge Wind development in Union County, which was planned to be sited adjacent to this proposed transmission line found 75 different bird species nesting in the forested areas. The numbers of nesting birds was so high that the US Fish and Wildlife Service recommended no development in the forested areas. The Baseline Noise Surveys describe the route of the transmission line to be adjacent to the 230 KV line which is adjacent to the Elkhorn Wind Development. For this reason, the wildlife information and studies completed as a result of the Elkhorn and Antelope Ridge Wind Developments are relevant to and should be analyzed in terms of providing some baseline information to compare with current surveys. Recommendations and concerns documented in comments regarding these two developments are directly related to the area of impact of this transmission line.
10. Before European immigrant settlement, the Glass Hill Monocline was the gathering location for hundreds of horses that were summer pastured on what we now call the Starkey Range Lands. This is sacred ground, that has been long recognized for its richness and integrity of native vegetation.

Please do not allow a site certificate until all surveys are completed or reviewed and updated.

Sincerely,

Carrie Caselton Lowe

Address:
1307 Aspen Dr
LaGrande, OR 97850



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) John H. Luciani

Mailing Address (mandatory) 27633 Butter Creek Rd.
Echo, Or. 97826

Phone Number (optional) 541-376-8112 Email Address (optional) _____

Today's Date: 6-27-19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

<p style="text-align: right;">Page 30</p> <p>1 factor to that environment. 2 There are other problems on our farm that I 3 have with this. We have an airstrip that will probably 4 be rendered useless because of the transmission lines' 5 location; we have Internet communication that could be 6 interrupted; and the cropping system that we use, most 7 likely I can't use an aerial applicator in that area. 8 It would make it extraordinarily more expensive to fly 9 next to this transmission line. So I have a lot to 10 lose. I have a lot to overcome if this happens. 11 So I appreciate the Council's consideration of 12 what I hoped to have made very specific, very real, very 13 credible information. We're talking about an 14 environmental problem and we're talking about destroying 15 a resource that could probably, in my opinion, there 16 might be better ways to serve the needs of power 17 somewhere else than making me live under such a 18 disastrous risk from the transmission lines. 19 Thank you very much. 20 HEARING OFFICER WEBSTER: Thank you, 21 Mr. Myers. 22 Next up is John -- is it Luciani? 23 MR. JOHN LUCIANI: I'm not quite ready, 24 please. 25 HEARING OFFICER WEBSTER: Do you want me to</p>	<p style="text-align: right;">Page 32</p> <p>1 electrical industry. After over 125 years, our mission 2 still stands as that. 3 The things that I want to bring to light are 4 the IBEW is in agreement with this project. We're in 5 support of this project for all the reasons identified 6 by Idaho Power. But the most important is for balancing 7 the renewable resources throughout this region and the 8 Intermountain West. 9 When we look at the constraints that are on 10 current transmission right-of-ways, those constraints 11 lend to high-capacity time periods in which additional 12 transmission lines throughout our regions can help 13 minimize I think some of these fire concerns that a lot 14 of the public has. The more that a transmission line is 15 overloaded, the more likelihood or the potential for the 16 system to fail, and the more likelihood of those fires 17 could occur. 18 I'm not here to discuss the potential routing 19 as far as the benefits or the considerations that went 20 in prior to this. My testimony is just to discuss the 21 imminent need. Transmission lines throughout this 22 region as well as connecting the Intermountain West are 23 needed in order to balance the peak-and-valley nature of 24 our renewable portfolios. 25 The energy imbalance market is something that</p>
<p style="text-align: right;">Page 31</p> <p>1 put you at the end of the line? 2 MR. JOHN LUCIANO: Please. 3 HEARING OFFICER WEBSTER: Next is Travis Eri 4 or Eri? 5 MR. TRAVIS ERI: That's correct. 6 Hello. Travis Eri. It's T-r-a-v-i-s, E-r-i. 7 Address is 17200 Northeast Sacramento Street, Portland, 8 Oregon 97230. 9 So to start with, my background, I'm a 10 journeyman lineman, having worked in the Pacific 11 Northwest, earning my certificate right here throughout 12 Oregon, Washington, and Idaho. I currently am the 13 business manager for International Brotherhood of 14 Electrical Workers, Local Union 125. And IBEW 125 15 represents the electrical workers throughout Oregon, 16 Washington, Idaho, and Montana, consisting of 3600 17 members in the utility and construction industry in all 18 sectors of construction, transmission, and distrib- -- 19 or generation, transmission, and distribution services. 20 I'd like to start by recognizing all those who 21 may be in opposition of this project for various 22 reasons. My testimony is not to minimize any of their 23 concerns that they are here discussing today. 24 The IBEW was formed in 1891, and our purpose 25 and our mission was to stand for improving safety in the</p>	<p style="text-align: right;">Page 33</p> <p>1 Pacific Power started several years ago, and many of the 2 utilities have joined into this. And it's nothing more 3 than basically sharing transmission authority between 4 different regions and taking advantage of 5 peak-and-valley natures of renewable portfolios. 6 What it allows for is a reduction in having to 7 spend resources to create new generation, allowing for a 8 lot of our carbon-emitting generation facilities to be 9 able to scale back and take advantage of excess 10 renewable in other areas. 11 The Boardman to Hemingway line, in what I have 12 seen from the studies, will do just that. It will 13 balance out renewable portfolios within the 14 Intermountain West, and the Oregon and Washington 15 Columbia River Gorge renewable portfolio, taking 16 advantage of those resources at different times when 17 they will be able to exchange power. 18 The additional benefit, other than easements 19 to those that are affected by the transmission 20 corridors, are also going to be felt through the 21 reduction in necessary transmission -- or sorry, 22 necessary generation being built in order to cover the 23 electrical needs of our communities. 24 And with Bonneville Power Administration 25 joining the energy imbalance market, all of the</p>

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1 impact. I can tell you, there's information out there
2 that contradicts what they're saying.
3 Around fires, this is another one. They're
4 relying on local fire departments, volunteer fire
5 departments, to deal with fires along this transmission
6 line. It takes minutes in some of these low-lying dry
7 areas for a fire to go a really long ways.
8 And I know one fire department in our area
9 said they can respond between 4 and 6 minutes. Well,
10 whoever asked them and they responded, I don't think so.
11 When you have a fire alarm and you're relying on people
12 to leave their work and their houses and get to the fire
13 department, they can't be there in 4 to 6 minutes. So
14 sometimes you kind of have to wonder how the question
15 was asked to get the kind of responses that they say
16 they've gotten.
17 Regardless of that, the fire issue and who is
18 going to take care of fires. I know Baker County asked
19 for a unit, to have the developer develop resources to
20 deal with fires, particularly in forested areas, because
21 those local fire departments don't have the equipment
22 that's necessary to deal with wildland fires. And
23 that's what you're going to be dealing with part of the
24 time. It's ignored in the application.
25 The traffic statements that they've made about

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1 changes in traffic, I haven't looked at a lot of the
2 roads they're going to use supposedly to take equipment
3 and things up to this site, back and forth, but I know
4 in my area they're talking about doubling the amount of
5 traffic that's currently existing on those roads.
6 Now, it may be legal to add 130 vehicles to a
7 narrow country road, with no sidewalks, like Foothills
8 Road. If any of you are familiar with Union County,
9 Foothill Road gets an incredible amount of -- bikers
10 love that road, walkers love that road. There is a lot
11 of just people who use that road. And now we're talking
12 about taking a road that normally gets about 120
13 vehicles a day and putting another 130 vehicles a day,
14 and that's not even including big equipment. That is a
15 safety issue where someone is going to get killed. Some
16 kid is going to run out in the middle of the road and
17 get killed. Who is responsible for that?
18 They didn't model noise along a lot of the
19 site, for instance, like the lay-down areas and that
20 kind of thing. I think I mentioned that the other day.
21 They also, as far as noise, there's so many problems
22 with noise I can't even hardly begin to think about it.
23 But they average the noise exposure across the 300-mile
24 line. So when people's exposure to noise is going to
25 run between 20 percent weather that would cause it -- or

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1 like 10 percent weather that would cause a corona effect
2 and 22 percent weather that would cause a corona effect,
3 that's a big difference. They didn't look at individual
4 locations, which as I read the rules, that's what you're
5 supposed to do is look at individual locations and what
6 is the difference going to be.
7 They didn't include some things in their
8 baseline noise evaluation that, according to the rules,
9 have to be included.
10 The fact that they took a consultant's
11 statement that it was okay to use a 5-hour period to
12 establish the baseline noise level and interpreted that,
13 it was interpreted as meaning it was okay to look at a
14 5-hour period of time to establish how many times a day
15 there was going to be a noise exceedance is pushing the
16 envelope, I would say. So typically you're looking at a
17 24-hour period when you look at it.
18 I would also like to share there was
19 mitigation with LCDC and also with the state courts that
20 say that the noise standard is not subject to de minimus
21 decision-making; it is a yes/no answer. It is a black
22 and white answer. So that is not consistent with saying
23 a certain percentage, whatever the percentage is, if
24 they're over the standard, they're over the standard.
25 And I did provide that to one of your folks here to go

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1 back and look at that.
2 Because I don't think you can say that it's
3 okay when you have litigation already that's gone
4 through the Oregon courts that say it is yes or it is
5 no. It is not de minimus.
6 So thank you. And you'll hear lots and lots
7 from me, comments, I'm sure you know. Thank you.
8 HEARING OFFICER WEBSTER: Thank you.
9 MS. IRENE GILBERT: Any questions?
10 HEARING OFFICER WEBSTER: Anybody else that
11 would like to fill out a comment card, please do so.
12 And Mr. Luciani, you are up.
13 I have a question for you: Is today your
14 birthday?
15 MR. JOHN LUCIANI: Yes. I'm here on my
16 birthday.
17 HEARING OFFICER WEBSTER: Happy birthday.
18 MR. JOHN LUCIANI: Thank you.
19 HEARING OFFICER WEBSTER: It looked like you
20 were very used to writing June 27 of a different year,
21 that's why I guessed it was your birthday.
22 MR. JOHN LUCIANI: Very good.
23 I'm John H. Luciani. It's L-u-c-i-a-n-i. My
24 address is 27633 Butter Creek Road, Echo, Oregon 97826.
25 I thank you for being here.

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1 I drove to La Grande the other night, and
2 watched as everybody there I guess you would call it
3 testified or said what they had to say. You were all
4 very kind. Everybody listened, everybody was -- I think
5 with interest.
6 Before I get into what I have to say, it broke
7 my heart, a lot of the cases up there, the people and
8 what they had to say. And so many of them have come to
9 the party late. One nice gentleman in particular, he
10 talked about years and years of getting permits to build
11 his dream home, it's a retirement home, and getting it
12 done in the mountains of La Grande. And we all know how
13 beautiful it is up there. And once everything was
14 finished and he just wanted to live his life, he gets a
15 letter, and he gets a letter in the mail from Idaho
16 Power that says, We're coming through.
17 And you can understand how obviously shocked
18 he must have been to have that happen with no prior
19 notice, nobody told him anything about it. And he was
20 in shock, he was hurting, and he was in shock. The
21 anger wasn't there yet, I don't think, maybe it was. He
22 was a very gracious person. He just didn't know where
23 to go. And a lot of times we have nowhere to go.
24 As you can see with my wavery voice, this
25 isn't my strong suit, public speaking. I'm a dirt

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1 farmer. I've spent most of my life on a tractor out in
2 the wild. I don't go that many places, I don't vacation
3 much. My wife doesn't like that very well but that's
4 the way it is. We stay on our ranches and we work.
5 A little bit of history. It seems to me this
6 has been going on -- I wish I would have wrote down the
7 first time that I had any dealings with Idaho Power. It
8 seems to me it was late '90s. I drove up my canyon to
9 work, as I had hundreds of times before, and something
10 out of the corner of my eye, it caught my eye, and it
11 was basically a piece of Sheetrock that had been ripped
12 a foot in diameter, 8 feet long, in an arrow right off
13 the side of the road. I hit the brakes and stopped and
14 backed up and said, What is this?
15 Obviously it was something that somebody could
16 see from the air. There were two of them on our place
17 that I found. And I went back and told my pop, I said,
18 Pop, what have we got here? He didn't know. And pretty
19 soon there was a meeting that we were all made aware of,
20 one of our neighbors, Frank Mater, my father, my mother,
21 some of the neighbors, went to this meeting. It was in
22 Boardman, as far as I can remember. And the Idaho Power
23 people were there talking about this proposed line and
24 how they had gotten in touch with everybody, and
25 everybody was in agreement and everybody let them go on

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1 their land.
2 And I remember my father telling me that Frank
3 Mater got up and said, You didn't get in touch with me.
4 Oh, yeah, we did. No, you didn't. Everybody had
5 answering machines, different things; there was no
6 message. Then my father also got up and said, Nobody
7 contacted me. Oh, yeah, we did. No, you didn't.
8 So this is what started our relationship with
9 Idaho Power. They trespassed on our land and then lied
10 about it and told us they did, and they didn't. So this
11 is who you're dealing with. This is who we're dealing
12 with. This started our relationship.
13 After that, I remember quite a while later
14 going to a meeting in Ione, Oregon, where this was the
15 first time that we basically had to speak or to listen
16 to what Idaho Power had to say. And I had several
17 questions, as did everybody else. And there was a
18 gentleman there, I will never forget, named Keith
19 Jorgenson, he was in charge of the project at the time.
20 And he came up to me after the meeting and said, Well,
21 John, what we basically want to do here is we want to
22 get along with you, being the landowner, before we have
23 to come in and take it. And I said, Take what? He
24 said, Your land. And I remember him standing next to
25 me, he hit me at my waist, and the first thing I wanted

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1 to do is, I don't even want to say. How could a person
2 say that to another person? What I came away from that
3 meeting with is the arrogance of Idaho Power.
4 So I had somebody that's trespassed, that's
5 lied to me, and now threatened to take my land. So this
6 is who we're dealing with. And I don't think anything
7 has much changed.
8 Over the years, we made an effort to once work
9 with Idaho Power; that didn't work very well either. I
10 remember I got together with my neighbors, the Hawkins
11 boys, and we met with a man called Terry Martins, and
12 came up with somewhat of a plan. Terry said, Okay, I'm
13 going to go home and go back and propose this and we'll
14 see what we can do. And it seems to me a year and a
15 half went by, and I finally got in touch with Terry. He
16 said, Well, I will meet you at your shop. And I
17 remember these guys by heart, it was Terry Martins and
18 Jeff Maffuccio, and it was Todd Adams, if I'm not
19 mistaken. And we sat down and talked a little. I said,
20 Well, did -- the issue at the time was it was going to
21 go right through our wheat land, and I didn't want the
22 trellis towers. And so we were proposing mono poles at
23 the time. A mono pole being one pole.
24 And I remember Terry saying, You know how big
25 those are? I said, No. He said, Well, they're 16 feet

<p style="text-align: right;">Page 58</p> <p>1 in diameter, and they're going to go all along your 2 road. So I said, Okay. 3 We had the meeting. They showed up at my 4 shop. I said, Well, did you take that to the engineers? 5 What did you think? He said -- I remember Terry looked 6 at Todd and he says, Did we ever submit that? After a 7 year and a half of waiting. So obviously he didn't 8 submit it. He didn't have any -- he didn't care. 9 Obviously I waited a year and a half thinking we were 10 getting somewhere. 11 I said, You guys, we're done. I'm done with 12 you. I will never talk to you again. You will never 13 come on my place again. We got up, they left, and that 14 was the last I had any dealings with Idaho Power, other 15 than emails and a few things that I've said along the 16 years. 17 How can a company, 306 proposed lines -- 18 306 miles long, a company in another state, dictate to 19 me that they're going to run through my property, ruin 20 my life, possibly ruin my profession, anything I have, 21 anything I've worked for over my life, my father, who's 22 now deceased 2 years ago. The arrogance to think they 23 can build a 306-mile transmission line, ruin thousands 24 of lives, take their ability to make a living, on and on 25 it goes, and to think they can get away with doing that.</p>	<p style="text-align: right;">Page 60</p> <p>1 everybody talks about high-value irrigated ground, and 2 we can't do that and we can't do this. But there is a 3 power corridor. Here is my question: This line is 4 supposed to go along a power corridor. Am I mistaken? 5 Can somebody answer that for me? An established power 6 corridor. 7 HEARING OFFICER WEBSTER: I can't answer that. 8 Idaho Power may make some commentary tonight, somebody 9 might help out that may be able to address that. But as 10 Ms. Tardaewether indicated at the outset, EFSC's job is 11 to determine whether the proposed route -- it's sort of 12 a thumbs up or thumbs down on the proposed route. So 13 EFSC is not in a position to identify a better 14 alternative necessarily. They're just dealing with the 15 route that's in the application. 16 MR. JOHN LUCIANI: I appreciate that. I 17 understand. Thank you. 18 This is a problem. We have a lot of questions 19 and no answers. It's been -- well, not comical, it's 20 just been to me over the years, watching this change, 21 and it's always who's who. And it started out going one 22 direction and, Oh, no, I can't have that. So then they 23 change it. Seems like they always kick it south. Then 24 it went here and then it went there, and then it went 25 here, and then Pendleton can have it. No, we don't want</p>
<p style="text-align: right;">Page 59</p> <p>1 Plus the fact the fires are a big issue 2 obviously, but we were also told the cancer factor. 3 We're going to be working under these things. You 4 cannot park your equipment under them, which we're going 5 to have to when we're harvesting, when we're working, 6 they drain the batteries. 7 One person said that we have to ground our 8 equipment because if you grab a catwalk or something to 9 get up in your tractor you can be shocked and killed 10 from the static. How do you ground a farm truck that 11 goes to the elevator every few hours? How is that 12 possible? 13 I can't use a spray plane anymore to spray my 14 crops when I need it. Not that I do that often but 15 there's times when I need to. The land values, what 16 that's going to do to the value of my farm, which I just 17 now own myself. 18 I also understand, and this is one of the 19 things I asked, I have questions, I understand by law 20 that this has to follow the power corridor. It's not 21 supposed to go over private ground. Nobody has answered 22 that question to me. There is a power corridor, and by 23 law, this is supposed to go along there. 24 Over the years coming to these things, there's 25 probably five or six of them that I have talked at,</p>	<p style="text-align: right;">Page 61</p> <p>1 it. 2 So it's basically down to us that are left. 3 And I feel the less important, the out of sight, out of 4 mind nobodies, because we're an easy target. 5 There's men on this Council here, if somebody 6 knocked on your door, came in, wanted to rob you, do 7 whatever to your family, you guys would not allow it. I 8 know you wouldn't allow it. No way. Women here, 9 hopefully you're all armed, hopefully you have been 10 trained. You wouldn't allow it either. 11 I'm not going to allow this line to go through 12 my farm. Everybody is very aware of it. I've been very 13 boisterous about this through the years. I don't 14 understand how anybody could allow this to happen. The 15 carnage that it would cause to our farms, what's going 16 to happen to it, on and on it goes. 17 And we have nowhere to go. We are up against 18 a wall. We are backed in a corner. I thought for years 19 that our Council members would not allow it, zero, 20 nothing, zero. Like they don't care. 21 I always knew that the Port of Morrow wanted 22 this. They were the only ones that I knew that wanted 23 it. Nobody ever explained to me where this tower is 24 going to go. At first it was going to come up, it was 25 going to go to California. Then no, it's going to take</p>

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1 a right, it's going to go east.
2 Now I hear that all these data centers who
3 were all in, all of us are in there, isn't that
4 pleasant? And may I say, the planning commission, the
5 Port of Morrow, they are going to regret the day that
6 they let these data centers come here. Some day they're
7 going to use all the water and all the power. And right
8 now there's no power to run the rest of them. I guess
9 there's two or three built. I don't know, I don't care.
10 And there's probably five more to go.
11 What is going on? Who allows this fiasco in
12 our backyard? So is the Idaho Power line going to feed
13 these? I don't know. I don't have the answers. Nobody
14 is willing to say anything. And you think, you think
15 that your elected officials are going to help us out
16 here. They wouldn't allow this to happen to us, have
17 somebody ruin our farms.
18 Then you find out, I read about Greg Smith the
19 other day, being the big buddy of the people of the Port
20 of Morrow. It's almost like he runs his own Clinton
21 Foundation. It's mind-boggling and unbelievable to me,
22 but he's obviously not going to help us out.
23 So I have nowhere to go. Nowhere. Nobody is
24 willing to listen. But all I know is Mark Stokes,
25 project guy, engineer, project leader, you're not coming

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1 through my farm. I won't allow it. Jeff Maffuccio, who
2 I have talked to I don't know how many times before,
3 facilities siting coordinator, you're not coming
4 through. I will not allow it.
5 And can you imagine 300 miles of pissed-off
6 people when this gets rolling, and I will hope that
7 there will be civil disobedience with this fiasco, that
8 will not allow it to be built. I pray every night and
9 all day that this line is not built. It has stolen my
10 joy. This goes on every day, the stress, the thought of
11 it.
12 It's like a bank foreclosure. You're waiting
13 on a bank foreclosure that goes on for 15 years. It has
14 stolen my joy. I'm not happy about it. I'm very angry.
15 And I will not allow it to be built on my farm, to ruin
16 my ranch, my family's ranch. It will not happen. I
17 won't allow it.
18 Thank you. And, no matter what happens, we
19 all have to look in the mirror every morning. Please do
20 not let this happen. Please do not vote and let this
21 happen. Thank you.
22 HEARING OFFICER WEBSTER: Thank you.
23 We have one more comment card. I don't know
24 if Council is going to have questions for -- we have two
25 more comment cards. And I don't know if Council is

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1 going to have questions for Idaho Power tonight. No?
2 Why don't we take a break now and we'll
3 reconvene in about 15 minutes, then we'll hear from the
4 last two. Give people an opportunity to, if there's
5 anybody here that hasn't filled out a comment card that
6 wants to do so, please do so during the break.
7 We'll reconvene about 6:40.
8 (Recess taken.)
9 HEARING OFFICER WEBSTER: It is 6:44. We are
10 back on.
11 My understanding is that we have somebody that
12 has joined us on the phone that would like to give
13 public comment as well. If you're out there, would you
14 please make yourself known.
15 Well, I will come back around to triple check
16 in a minute.
17 But here in person to give testimony tonight
18 is, coming up next is Fuji Kreider.
19 MS. FUJI KREIDER: Good evening. Fuji
20 Kreider, 60366 Marvin Road, La Grande, Oregon. Thanks,
21 and thanks for hearing from me again.
22 First off, I want to thank you all sincerely,
23 all of you, Council and the staff, for the action that
24 you took last evening. That was to extend to the
25 comment period another 30 days to August.

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1 And I want to say, and maybe you were starting
2 to observe from the prior meetings, that you weren't
3 getting people testifying with significant specificity,
4 or whatever the word is. With the first month, with the
5 draft proposed order in front of us, as I mentioned to
6 you last night, people are very, very confused. And the
7 draft proposed order doesn't have the same table of
8 contents as the exhibits and this and that, no numbers
9 and attachments, and other things. It was just getting
10 to be crazy lately. So I really appreciate the extra 30
11 days.
12 I think at this point, most of us have
13 navigated the table of contents and we understand what
14 documents we have to look at and all. So this gives us
15 a little more time to digest it. So thank you for that.
16 You know I've been at all five of these
17 hearings, you've seen me, most of you, that also have
18 been at all five meetings and are probably as tired as I
19 am, or more so, you have to sit and pay attention.
20 But I thought that maybe tonight because I too
21 am going to submit my written comments by the deadline,
22 but I thought I'd take a little time tonight because you
23 don't have a lot speakers. As one of the gentlemen
24 said, it's not really in the culture of east Oregonians
25 to do a lot of public testimony; so we're slow at this.

August 22, 2019

To: EFFC

Let me preface this letter with, **we do not trust Idaho Power**. You have not operated in good faith or been truthful. You have trespassed on our land without our knowledge and then lied about it. We as well as our neighbors found your markers on our property, you lied and said we had given you permission to enter our land. NOT TRUE!!

We here on Luciani Ranch are 2nd generation farmers with a 3rd and 4th generation on the way. It has always been very important to us to be paramount stewards of the land. We have taken pride in preserving our land for not only our generation, but for the generations of Children and Grandchildren ahead. With our farming operation being dryland, preventing land erosion is of utmost concern. We have put hundreds of thousands of dollars into changing our operation to chem- fallow because of highly erodible land that comes with dryland farming. We have never allowed people to drive onto our range or farmland due to the disruption it causes physically and aesthetically! Most people don't realize that with land erosion comes weeds and land scars that will **never** heal.

Not only do we do all we can to protect our land, we also are stewards for the wildlife habitat, we have placed guzzlers all over our farm to provide water for small wildlife, planted CRP with wildlife food plots to provide for the wildlife, this all helps preserve the land for future generations and once more protects the land from water and wind erosion. We have gone to the expense of raising pheasant's and chucker's with surrogater's, not for hunting, but for building the herd for future generations.

What would be the ramifications of a huge transmission line's going through our property?

- Land erosion
- Irreversible land scaring and damage
- Ongoing traffic for line repair
- Aerial spray applications will be limited for critical late summer sprayings, they will not come within thousands of feet within the towers. How do you control your weed when the plane cannot get within 2000 feet of the towers and it's too dusty to spray with a ground sprayer?
- Drastic land devaluation
- Possibility of more lines to come, taking out more parcels of land which would more than likely run us out of business.

Safety of living and equipment under the lines:

- ❖ possible electrocution from non-grounded equipment
- ❖ Multiple Sclerosis
- ❖ brain cancer
- ❖ childhood and adult leukemia
- ❖ Lou Gehrig's disease (ALS)
- ❖ Alzheimer's disease

- ❖ breast cancer in women and men
- ❖ miscarriage, birth defects, reproductive problems decreased libido
- ❖ fatigue, depression and suicide, diseases
- ❖ Hormonal imbalances
- ❖ Heart disease, neuro-degenerative diseases, sleeping disorder and many others.

All points of information can be verified at <http://emwatch.com/power-line-emf/>

The bottom line, in addition to all the points listed, we love where we live and many years ago chose this life style and at this late point in our lives we have no other options to make a living. Farming is not an easy life or an easy way to make a living before the added complications of your power lines, but it is our way of life. The **only reason** we built our home where it is placed, was because of the majestic view of Mount Adams from our living room window and the views each direction around our home of the beautiful rolling hills, wildlife, blue skylines and billowy clouds, it's all pretty simple stuff but important to us. All these aesthetics would be destroyed should your power line be anywhere physically or within visual view of our property. **WE DO NOT WANT THIS VIEW DESTROYED.** The value of our property would be diminished significantly if your power lines were to be near, on or visual from anywhere on our property. **We do not want and will not allow the Boardman to Hemmingway power line to go through or anywhere near our property physically or visually.**

Contrary to the untruth which we have been led to believe, we have since learned that these existing lines **"can be stacked"** on new poles going down the existing corridor of I-84. **To limit environmental disaster, this is our recommendation for your project.** Our pristine farm land and beautiful views are precious and limited, no more can or will be made.

John H Luciani

Karen Luciani

Adam Archer

Rachel Archer

Riley Archer

Jules Archer

8/22

To: EFFC

A follow up after speaking at the Boardman meeting. Nothing scares me more than fire. The fire danger from these power lines will not be acceptable. Lightning storms are dangerous enough, but add these power lines and the static adds to the danger, this we are not willing to accept.

I love this quote from one of our founding fathers John Locke, "Whenever the legislators endeavor to take away and destroy the property of the people, or to reduce them to slavery under arbitrary power, they put themselves into a state of war with the people, who are thereupon absolved from any further obedience."

As I stated at the meeting, I or my family will not allow Idaho Power to build their line on our property or property we lease.

Energy Siting Council, do the right thing and do not allow permitting of this fiasco!

Best Regards,

John H Luciani and Karen S Luciani

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - Drill site 95/3 and 95/4 on unstable and steep slopes
345-022-0020

(c) ...*The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...*

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*”

presenting design and construction challenges." IPCs stated original intention to the EFSC was the following: "Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

The area surrounding the drill site 95/3 and 95/4 is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission "facility." While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,


Signature


Printed Name:

Mailing Address: *P.O. Box 777
LaGrande, OR 97850*

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Union County, Oregon, Union County Emergency Operations Plan – Hazard Analysis. Updated – 6/30/2016.

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.


Signature

Dixie Lund
Printed Name

Mailing Address: *P.O. Box 777
LaGrande, OR 97850*

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT


Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name: *Dixie Lund*
Mailing Address: *P.O. Box 777
LaGrande, OR 97850*

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

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Re: Soil Protection - **Drill site 95/3 and 95/4 on unstable and steep slopes**
345-022-0020

(c) ...The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30; High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states *“The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.”* Idaho Power Corporation admits in ASC page B-12 that *“The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*

presenting design and construction challenges.” IPCs stated original intention to the EFSC was the following: “Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

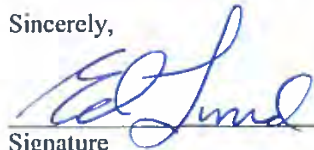
The area surrounding the drill site 95/3 and 95/4 is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission “facility.” While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,



Signature

ED LUND

Printed Name:

Mailing Address: P.O. Box 777, LAGRANDE, OR 97850

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Union County, Oregon, Union County Emergency Operations Plan – Hazard Analysis. Updated – 6/30/2016.

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.


Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.



Signature

ED LUND

Printed Name

Mailing Address: P.O. Box 777, LAGRANDE, OR. 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

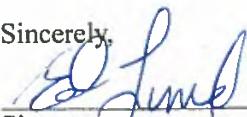
Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name: ED LUND

Mailing Address:
P.O. Box 777
LAGRANDE, OR
97850

~~SAMPLE PUBLIC COMMENT~~

July 22, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B@H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

As a citizen of La Grande and XXXX, I have grave concerns about the proposed placement of the Idaho Power Boardman to Hemingway Transmission Project. My concerns are for the safety of myself, my family and the citizens of La Grande if this line is erected. My primary concerns are twofold: slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union

County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf).

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were ALL ATTRIBUTED TO ELECTRICAL OR POWER LINES.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the City as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an UNACCEPTABLE risk for our citizens.

The current proposal for a Boardman to Hemingway electrical transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande. This proposal should be REJECTED.

Sincerely,

Name
Address
La Grande, OR 97850

email address

A.M. Lunsford
Dane Lunsford
808 Main Ave
La Grande OR
97850

As a Soil Scientist, it is critical that this criteria be given the recognition that it deserves. Soil stability has local and regional impacts that range from slumping ^{road collapse} to increased sediment loads in stream channels. Please stop this archaic action.

ESTERSON Sarah * ODOE

From: Charles Lyons <marvinroadman@gmail.com>
Sent: Wednesday, August 21, 2019 1:54 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
Attachments: B2H slope-fire concerns Charles Lyons.docx

Attached please find my comments on the proposed Boardman-to-Hemingway Transmission Project.

-Charles A. Lyons
60332 Marvin Rd.
La Grande, OR 97850

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am writing to express my serious concerns about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several additional studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

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This slope instability is not inconsequential to a project like this. In 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line includes the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,

Name: Charles A. Lyons
Address: 60332 Marvin Rd.
La Grande, OR. 97850

TARDAEWETHER Kellen * ODOE

From: Debra MacBaker <drmctchr@icloud.com>
Sent: Tuesday, August 20, 2019 6:07 AM
To: B2H DPOComments * ODOE
Subject: B2H Transmission Lines
Attachments: EPSON002.PDF

Please see attached letter.

August 19, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.) of

field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

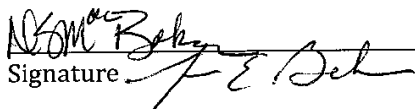
Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.


Signature

Debra S. MacBaker and Merlyn E. Baker
Printed Name

Mailing Address: 60202 Morgan Lake Road, La Grande, OR 97850

TARDAEWETHER Kellen * ODOE

From: Debra MacBaker <drmctchr@icloud.com>
Sent: Tuesday, August 20, 2019 6:07 AM
To: B2H DPOComments * ODOE
Subject: B2H Transmission Lines
Attachments: EPSON003.PDF

Please see attached letter.

August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

1. Idaho Power failed to provide noise estimates for the lay down areas and incorrectly determined they were not required to do so.
2. Idaho Power failed to include all sources of noise as required by OAR 340-035-0035 in noise modeling done on all sites which were not previously used.

References:
OAR 340-035-0035

The exception to requiring noise impacts from sources listed in subsections (5)(b) - (f), (j), and (k) does not apply to developments on sites not previously used. When a lay down area, or other development is located on a site not previously used, the rule states "Sources exempt from the requirements of section (ii) of this rule which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The applicant must provide noise monitoring results for all lay down areas or other areas where these types of noise will occur in areas not previously used.

Site Condition needed:

The applicant will complete noise modeling which includes the noise sources identified in OAR 340-035-0035 for all areas where development will occur on sites not previously used. The uses are contained in OAR 345-035-0035(5)(b) - (f), (j), and (k).

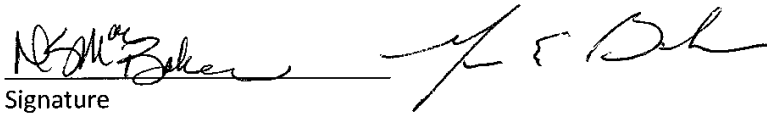
For any site exceeding the noise standards, the developer will obtain a waiver from the property owner prior to the start of construction, or establish through all available means of mitigation that the location will not exceed the noise standard.

When applying another agency's rules, the Oregon Department of Energy and Energy Facility Siting Council do not have the authority to make unique interpretations of common terms like "infrequent". The Oregon DEQ as the agency responsible for the rules must

provide any interpretation if indeed one is needed beyond the dictionary and common use of the term.

Noise surveys have not been completed, and it has not been established that the project will be able to meet the requirements of the standard, therefore, the site certificate must be denied.

Sincerely,


Signature

Printed Name: Debra S. MacBaker, Merlyn E. Baker

Mailing address: 60202 Morgan Lake Road, La Grande, OR 97850

TARDAEWETHER Kellen * ODOE

From: Debra MacBaker <drmctchr@icloud.com>
Sent: Tuesday, August 20, 2019 6:06 AM
To: B2H DPOComments * ODOE
Subject: B2H Transmission Lines
Attachments: EPSON004.PDF

Please see attached letter

August 18, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project (B2H) 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

This letter is a public comment for the above referenced project. Specifically, this letter will discuss Idaho Power's compliance with Standard 345-022-0110 - Public Services, in Exhibit U (3.5.6.2 and 3.5.6.5) of the EFSC application for B2H to ODOE. The letter will discuss the impact potential wildfires caused by the B2H transmission line will have on the ability of public and private providers within the analysis area to provide fire protection.

The effect of transmission lines on wildfire impact in western states has been well documented. In California, PG&E lines have caused 5 of the 10 most destructive fires since 2015, producing a liability of over 30 billion for PG&E. When considering the impact of B2H's operation, residents of Union County find the similarities between La Grande and Paradise California, where the infamous Camp Fire struck in 2018, deeply concerning. La Grande and Paradise share similar elevations and populations, however, La Grande has several characteristics that make it significantly more vulnerable to the ravages of wildfire than Paradise. For instance, La Grande averages 18 inches of rain yearly while Paradise enjoys 55 inches. Additionally, the proposed line runs adjacent to La Grande, while the line causing the Camp Fire was 7 miles from Paradise. *Oregon's 2006 Communities at Risk Assessment* by the Oregon Department of Forestry cites a startling fact: **The fire risk of the wildland urban interface (WUI) in La Grande has been rated the #1 WUI fire risk in Oregon!**

There is no doubt that construction of the proposed B2H transmission line would significantly increase the risk of wildfire in our area. From Idaho Power's own Draft Protection Order (Exhibit U-3.5.6.2, p. U-24): "Most activities will occur during summer when the weather is hot and dry. Much of the proposed construction will occur in grassland and shrub-dominated landscapes where the potential for naturally occurring fire is high. Project construction-related activities, including the use of vehicles, chainsaws, and other motorized equipment, will likely increase this potential risk in some areas within the Site Boundary. Fire hazards can also be related to workers smoking, refueling, and operating vehicles and other equipment off roadways.

Welding on broken construction equipment could also potentially result in the combustion of native materials near the welding site.” Idaho Power recognizes this hazard but makes no consideration of it in its application.

There are several specifics to examine in an analysis of the proposed B2H line’s effects on Union County’s ability to provide fire protection services. Firstly, firefighting crews in our region are limited and volunteer. In their application, Idaho Power avers, “Most of the fire districts within the analysis area comprise volunteers, and in some cases, it takes considerable time to collect and mobilize an entire fire crew.” As well, JB Brock, Union County emergency Manager states in Idaho Power’s application “volunteer fire departments (rural fire protection districts) have a hard time finding volunteers due to budget constraints, similarly to budget constraints at the state and federal level. The wildland fires are getting bigger and cost more to fight” (U-1C-6). Fire crews in Union County are not equipped to handle potential wildfires generated by the proposed B2H transmission line.

The fact that fire crews are unstable, small and volunteer affects many aspects of their ability to respond to wildfires. Delayed response times, as noted in the quote from the previous paragraph, is one effect. Estimates of response time in the EFSC application are best-case scenarios. The estimate of 4 to 8 minutes as the response time in Union County (Table U-10) is far from even a best-case scenario (p. U-17). Residents that live on Morgan Lake Road concur that driving time is at least 10-15 minutes to the most accessible areas of the line from the base of Morgan Lake Road. Add to this estimate travel time from the La Grande Fire Station (approximately 7 minutes) and the time needed for individual fire fighters to travel to the Fire Station for a more realistic best-case scenario response time. The Paradise Camp Fire burned at a rate of over 1 acre per second!

Another factor in transmission line fires particularly impactful for small volunteer fire departments is the complications to firefighting introduced by the transmission lines themselves. According to Marvin Vetter, ODOF’s Rangeland Coordinator, “local crews have no training in this scenario and will wait for the lines to be de-energized.” JB Brock, Union County Emergency Manager, states, “The project (transmission line) could limit the ability on initial attack if fire fighters have to wait for power lines to be de-energized.” (U-1C-6) These delays allow fires to grow even more.

How can communities struggling to maintain volunteer fire crews hope to address the overwhelming additional challenges and risks imposed by a project such as the B2H transmission line? Where is this addressed in Idaho Power’s application and how can Idaho Power conclude that the proposed B2H transmission line is “not expected to have significant adverse impacts on fire protections services” (Exhibit U 3.5.6.2)? Considering the current capacities of fire protection services in Union County and the additional risks of wildfire imposed by the B2H transmission line, I urge you to act in accordance with state statute OAR

345-022-0110 and reject Idaho Power's application to construct the Boardman to Hemingway transmission line.

Sincerely,

A handwritten signature in black ink, appearing to read "Debra S. MacBaker and Merlyn E. Baker". The signature is written in a cursive, flowing style.

Debra S. MacBaker and Merlyn E. Baker
60202 Morgan Lake Road
La Grande, OR 97850

TARDAEWETHER Kellen * ODOE

From: Debra MacBaker <drmctchr@icloud.com>
Sent: Tuesday, August 20, 2019 6:09 AM
To: B2H DPOComments * ODOE
Subject: B2H Transmission Lines
Attachments: EPSON001.PDF

August 19, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via Email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the B2H Transmission Project 9/28/2018; DPO 5/23/2019

Dear Chair Beyeler and Members of the Council:

My comment is about the blasting that would likely be required during the construction phase of the B2H line near MP 106—108 of the IPC-preferred Mill Creek route. Although the application does not specify where blasting will occur, *Attachment G-5 Framework Blasting Plan* states: "Blasting may be needed in certain areas with rocky terrain to excavate tower footings, prepare station pads, and to construct access roads."

The relevant standard is the 345-022-0020 Structural Standard:

"(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility;"

My impression from reviewing the application is that the applicant has not fully considered the impacts of blasting on the nearby unstable slope in a populated area of La Grande, Oregon. The map on page 169 of *Exhibit H Geological Hazards and Soil Stability*, shows the B2H line at MP 106—108, where it is within about 2500' of a populated "Unconsolidated Sediments" zone (labeled Qf) and then crosses a "Landslide Deposits" zone (labeled Qls) near MP 108.

The application also mentions the slope instability in a small part of this area, on page 112 of *Exhibit H – Attachment H-1 Appendix B Soils Data Tables and Maps*:

"One of the landslides mapped by Schlicker and Deacon (1971), not included in SLIDO, intersects the IPC Proposed Route between towers 106/3 and 106/4. Based on review of topography and aerial photographs, this mapped landslide may impact the proposed work areas around tower 106/4. A field reconnaissance of this area should be performed as part of the geotechnical exploration program."

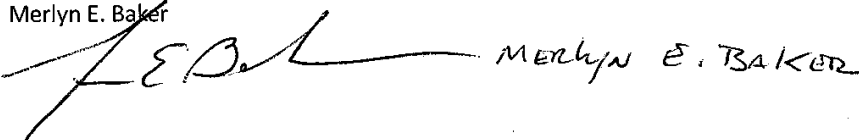
My concern is more about the construction process than about the integrity of the towers after construction. The application identifies the problem in general but provides no detail about the blasting or about the potential effects on nearby houses in an area that the City of La Grande designates as a "Geologic Hazard Zone." We know that each tower footing will require a hole 30—50' deep, and that the bedrock underneath the line at MP 106—108 will almost certainly require blasting for efficient excavation. The application does not address this concern, and the proposed construction is simply too close to a populated area to mitigate the risk of damage to homes. The application does not comply with the relevant standard.

Sincerely,



Debra S. MacBaker

Merlyn E. Baker



MERLYN E. BAKER

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

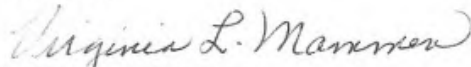
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

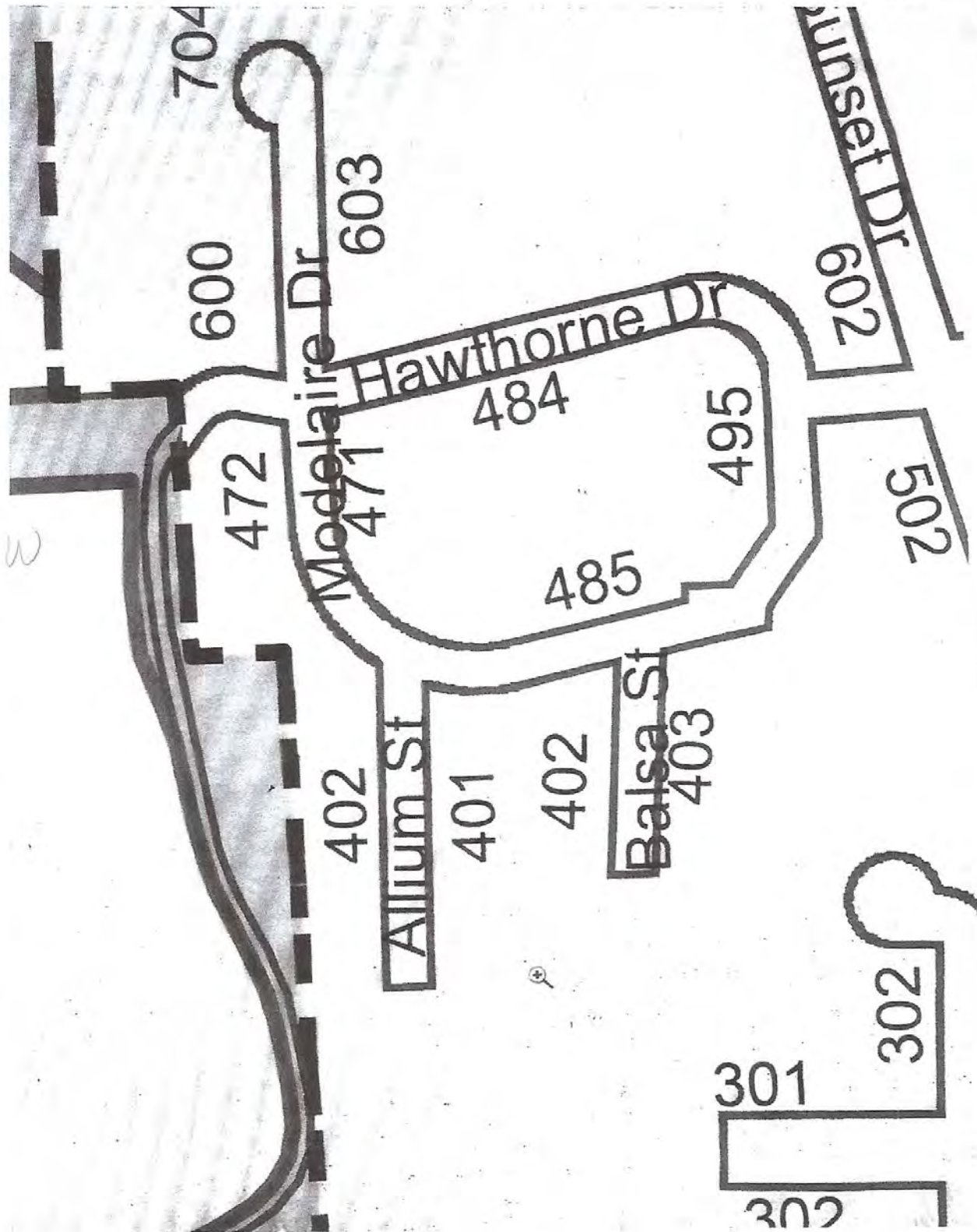


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

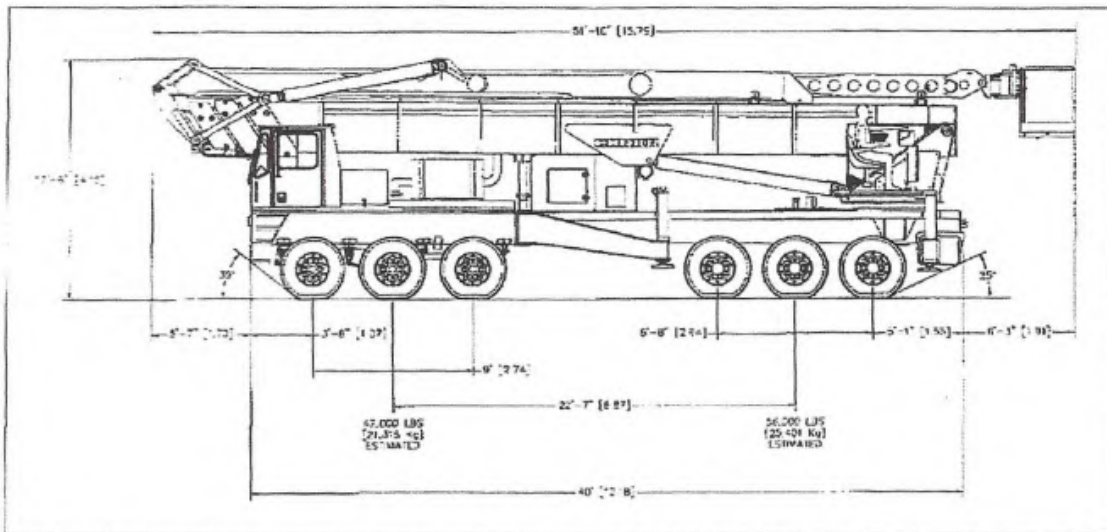


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Transportation and Traffic Plan

Boardman to Hemingway Transmission Line Project

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

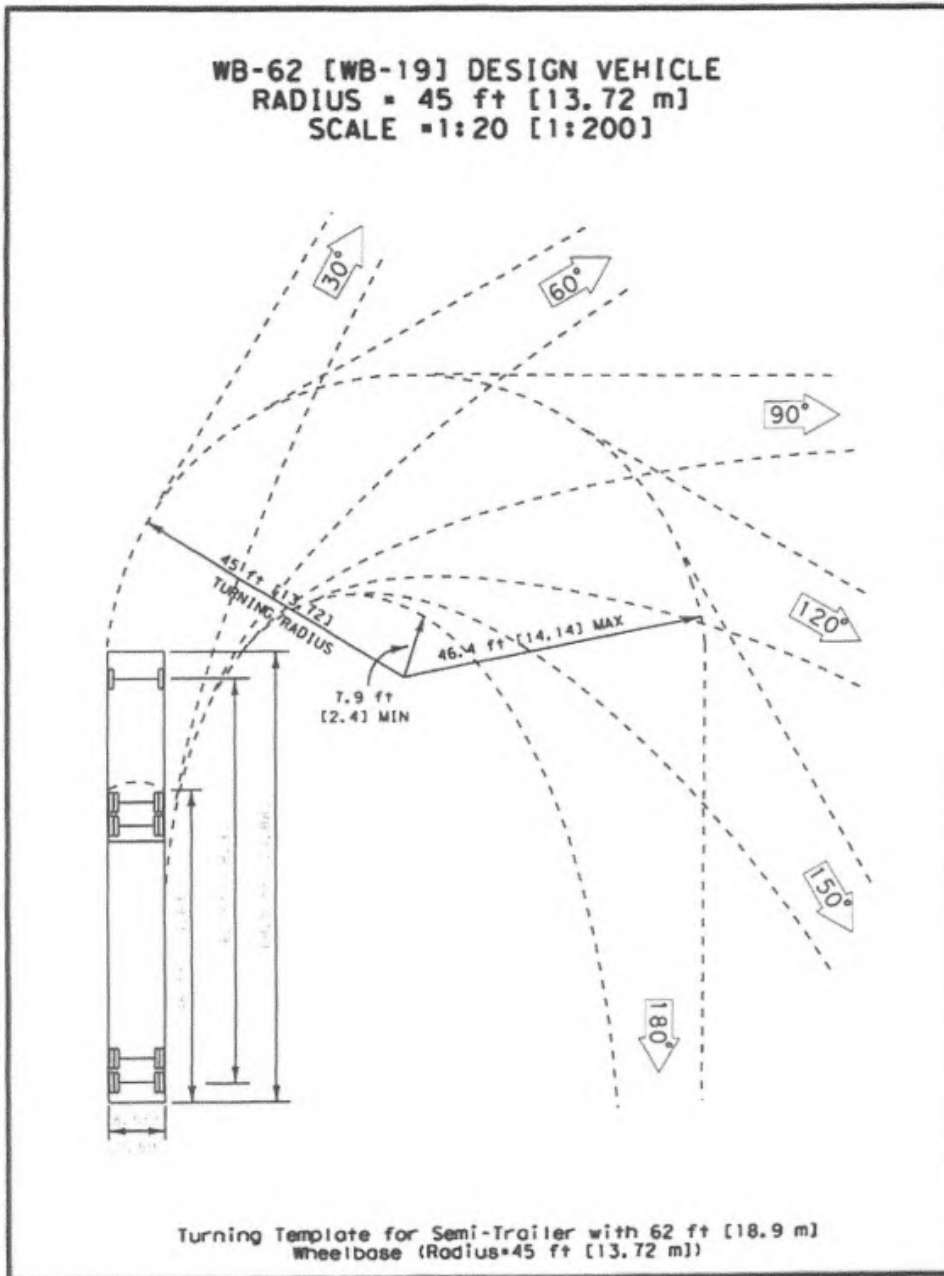


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

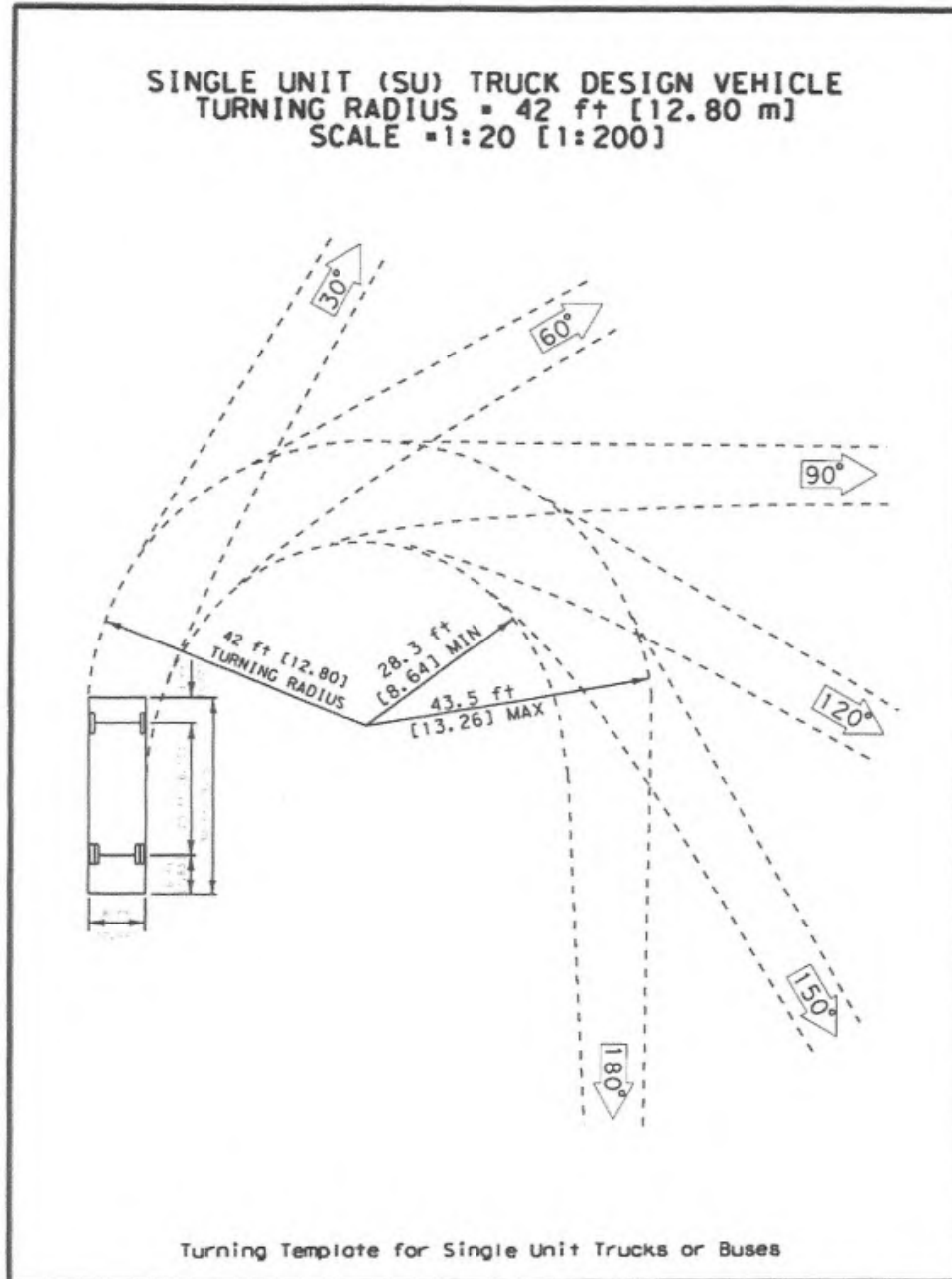


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

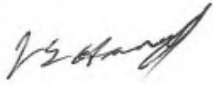
Section 17. TRUCK ROUTES

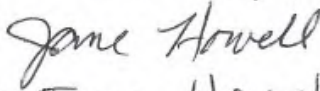
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

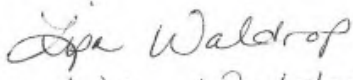
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

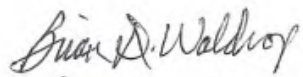
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

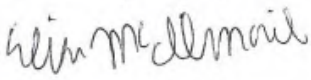
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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SIGNATURE

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ADDRESS

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SIGNATURE

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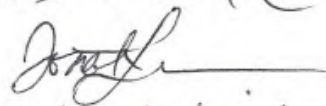

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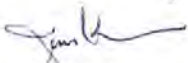
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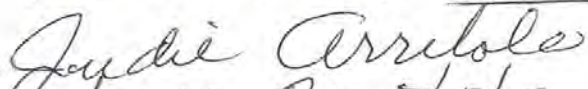
EMAIL

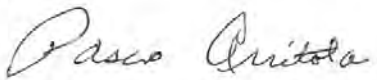
Blake Bars
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1101 G Ave La Grande
blakebars@gmail.com


I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
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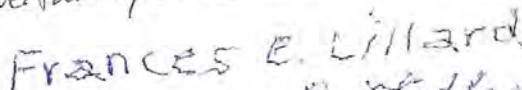
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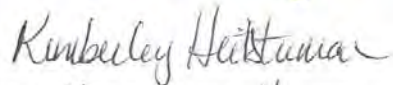
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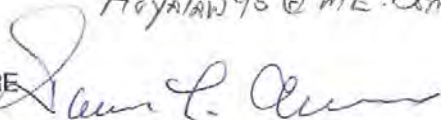
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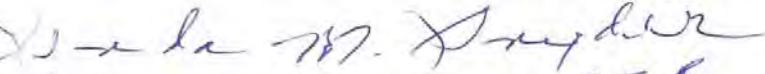
SIGNATURE 
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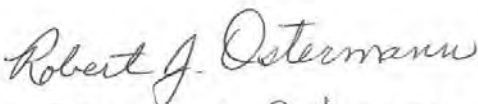
SIGNATURE 
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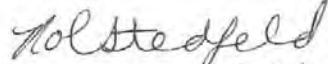
SIGNATURE 
PRINTED NAME Linda Snyder
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SIGNATURE 
PRINTED NAME Robert J. Ostermann
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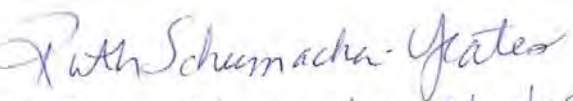
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PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

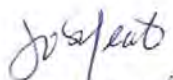
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SIGNATURE 
PRINTED NAME Jonathan D. White
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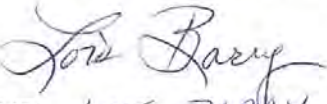
SIGNATURE 
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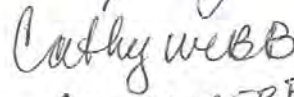
SIGNATURE 
PRINTED NAME Rita Allen
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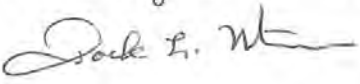
SIGNATURE 
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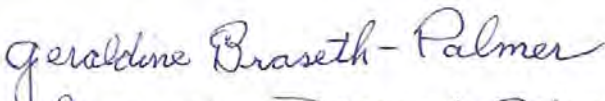

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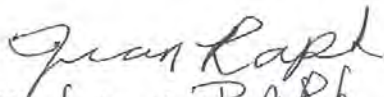
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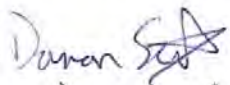
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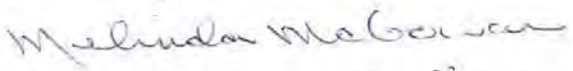
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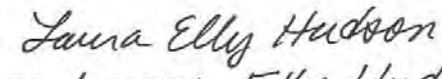
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SIGNATURE 
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SIGNATURE 
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SIGNATURE *Gary D. Pierson*
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SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
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SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street LaGrande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
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EMAIL MERLECOMFORT@GMAIL.COM

SIGNATURE *Robin L. Maille*
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PRINTED NAME *Bruce C*
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SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
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EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
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PRINTED NAME
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PRINTED NAME
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PRINTED NAME
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EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

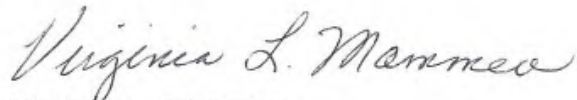
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

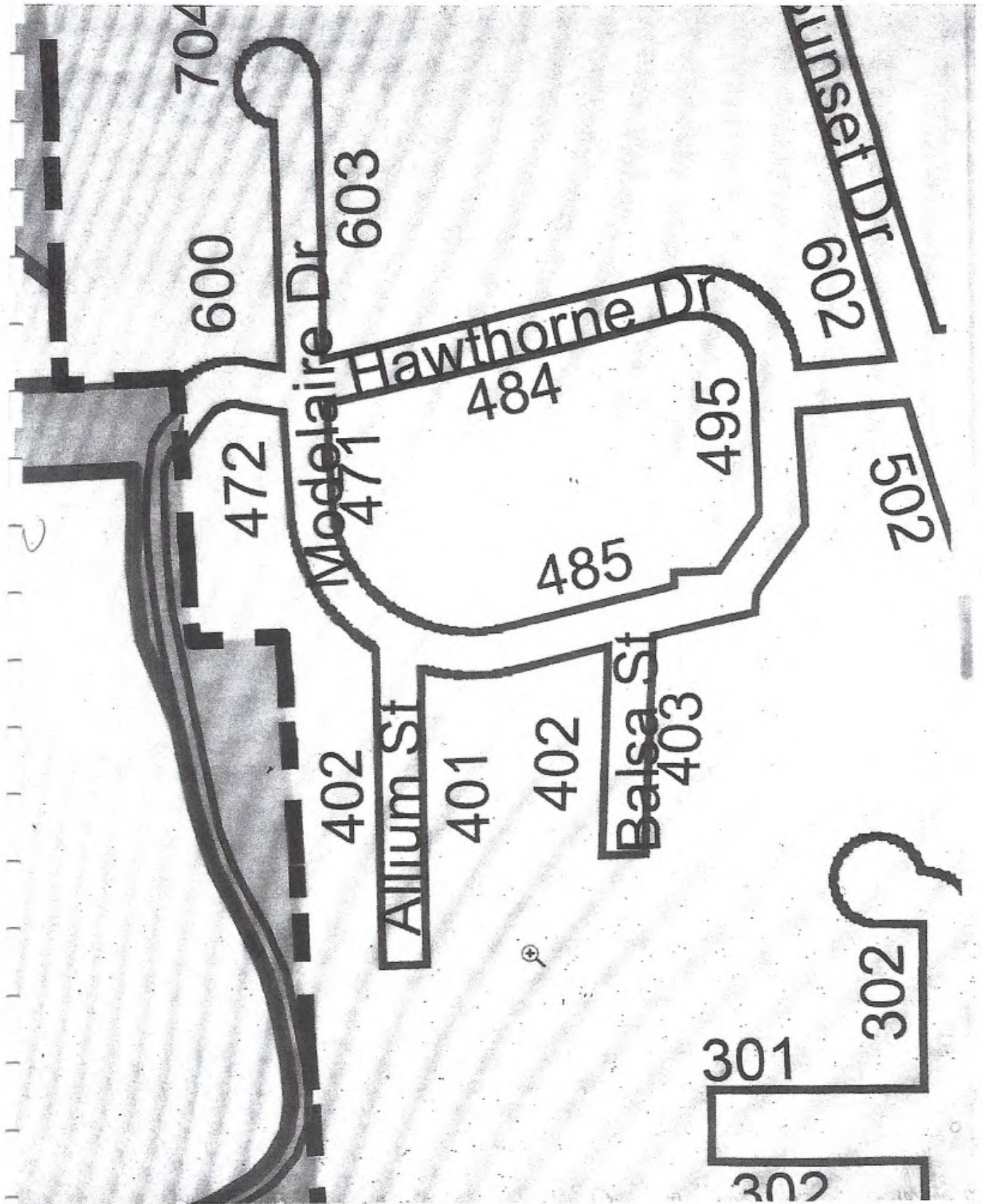


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

3.3 Predicted Noise Levels

OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation of the proposed facility.

3.3.1 Construction Noise

3.3.1.1 Predicted Construction Noise Levels

Project construction will occur sequentially, moving along the length of the Project route, or in other areas such as near access roads, structure sites, conductor pulling sites, and staging and maintenance areas. Overhead transmission line construction is typically completed in the following stages, but various construction activities may overlap, with multiple construction crews operating simultaneously:

- Site access and preparation
- Installation of structure foundations
- Erecting of support structures
- Stringing of conductors, shield wire, and fiber-optic ground wire

The following subsections discuss certain construction activities that will periodically generate audible noise, including blasting and rock breaking, implosive devices used during conductor stringing, helicopter operations, and vehicle traffic.

Blasting and Rock Breaking

Blasting is a short-duration event as compared to rock removal methods, such as using track rig drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills. Modern blasting techniques include the electronically controlled ignition of multiple small-explosive charges in an area of rock that are delayed fractions of second, resulting in a total event duration that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

Lattice tower foundations for the Project typically will be installed using drilled shafts or piers; however, if hard rock is encountered within the planned drilling depth, blasting may be required to loosen or fracture the rock to reach the required depth to install the structure foundations. Final blasting locations will not be identified until an investigative geotechnical survey of the analysis area is conducted during the detailed design.

The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with applicable state and local blasting regulations, including the use of properly licensed personnel and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in Exhibit G, Attachment G-5.

Implosive Devices

An implosive conductor splice consists of a split-second detonation with sound and flash. Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be developed by an individual certified and licensed to perform the work. The plan will communicate all safety and technical requirements including, but not limited to, delineation of the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4a

8/5/2019

Oregon Secretary of State Administrative Rules

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

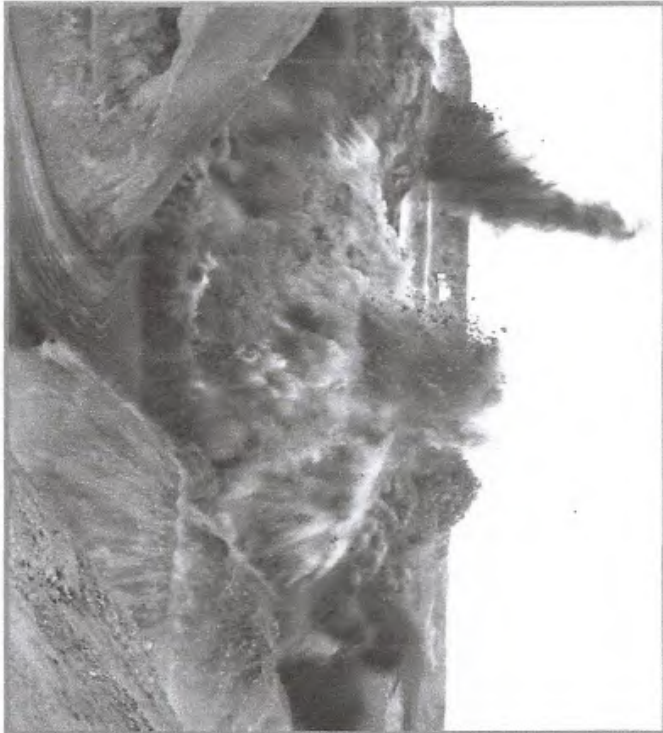
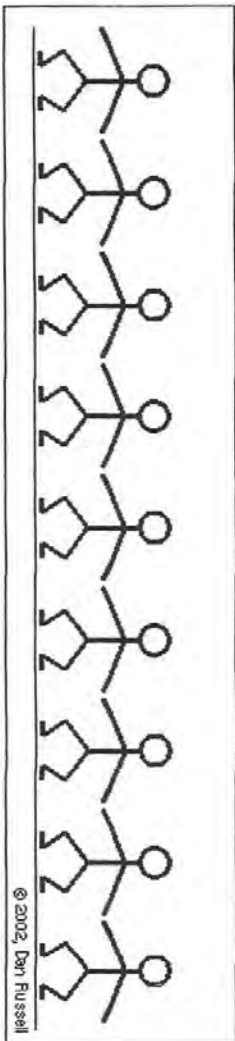


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

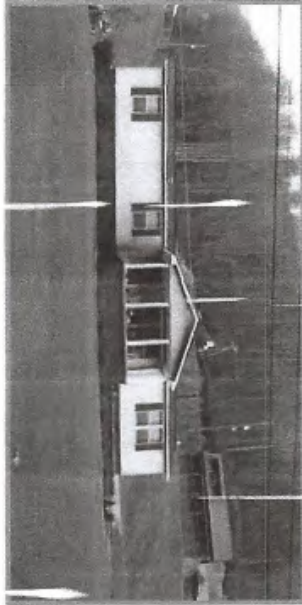
Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

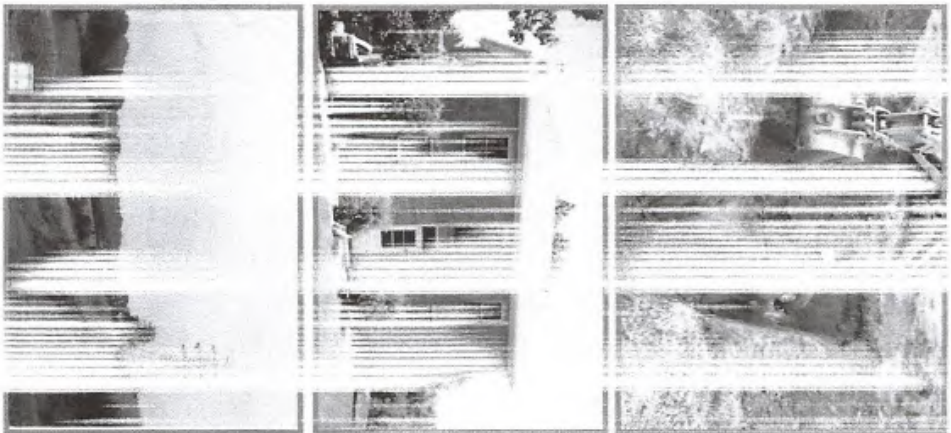
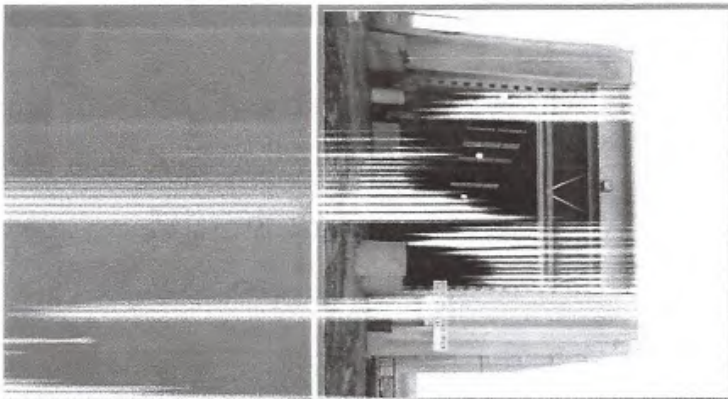
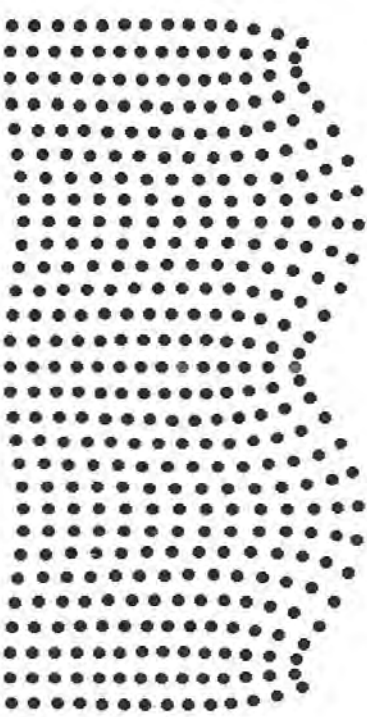


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

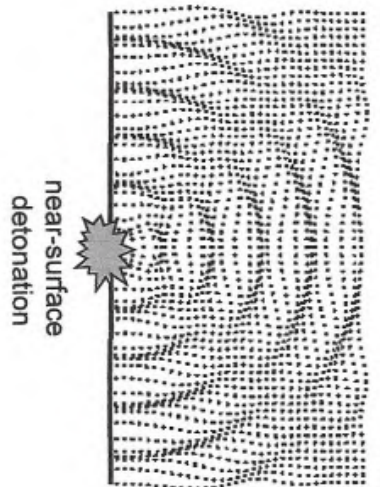
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

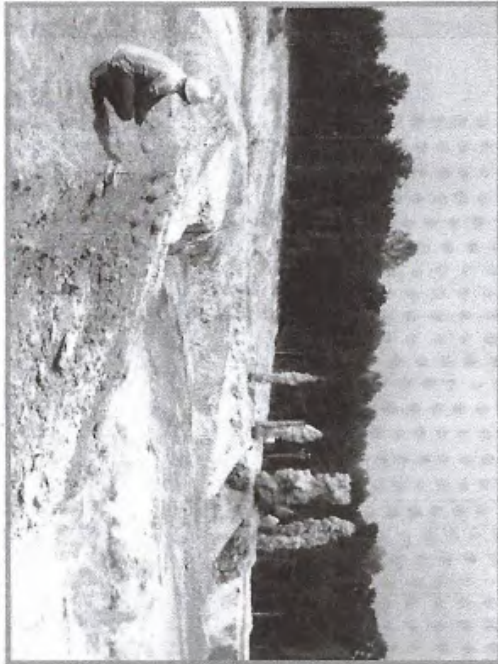
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

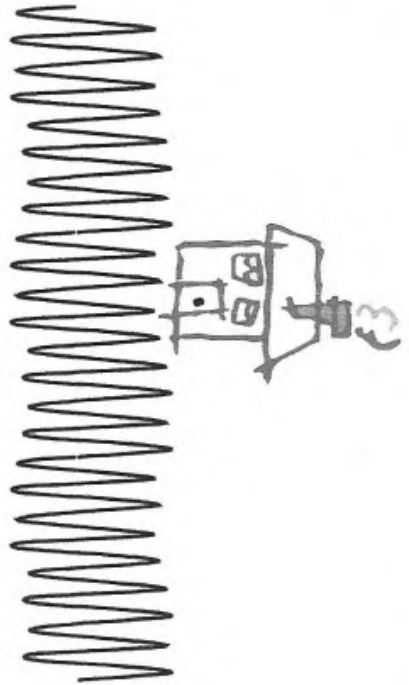
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

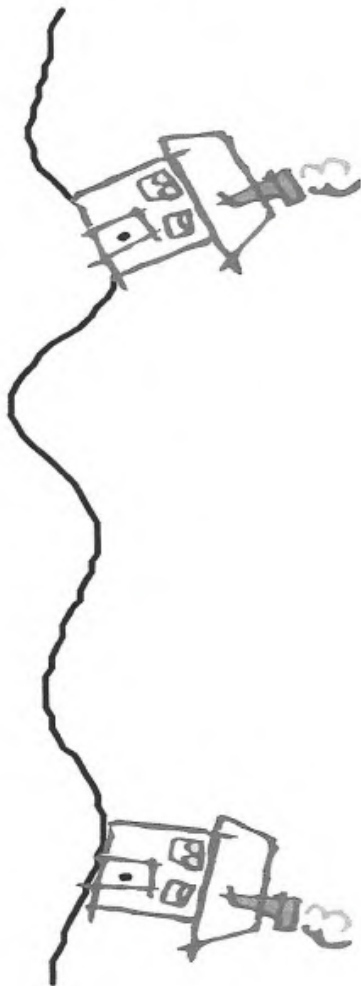


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



Harvard Health Publishing
HARVARD MEDICAL SCHOOL
Trusted advice for a healthier life

A noisy problem - Harvard Health

Exhibit 16
CART | FREE HEALTHBEAT SIGNUP | SHOP | SIGN IN

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What can we help you find?



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HEALTH

MIND &
MOOD

PAIN

STAYING
HEALTHY

CANCER

DISEASES &
CONDITIONS

MEN'S
HEALTH

WOMEN'S
HEALTH

LICENSING

Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



(<https://medcenterblog.uvmhealth.org/>)

UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org/>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

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acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10 12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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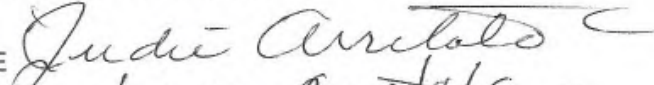



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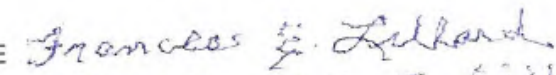
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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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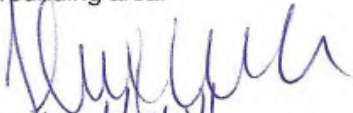
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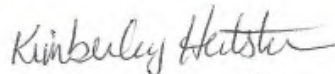
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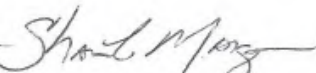
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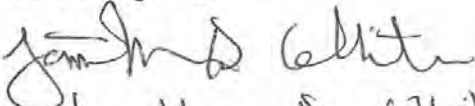
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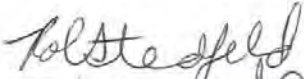
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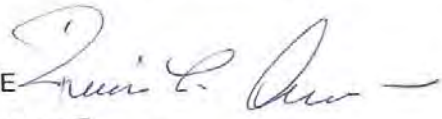
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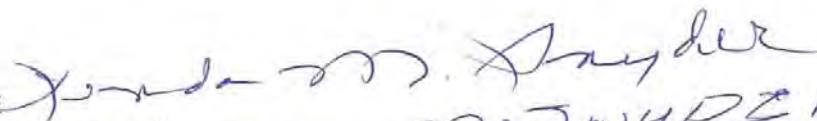
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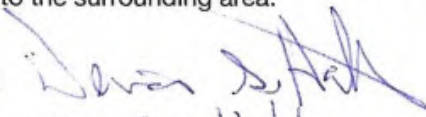
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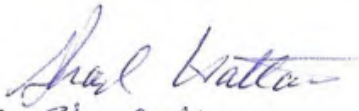
Denise Hattan

ADDRESS

507 Sunset Dr. La Grande, OR

EMAIL

SIGNATURE



PRINTED NAME

Shad Hattan

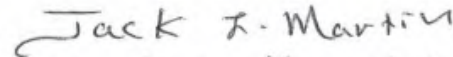
ADDRESS

507 Sunset Dr

EMAIL

hattansl88@gmail.com

SIGNATURE



PRINTED NAME

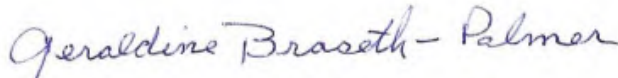
Jack L. Martin

ADDRESS

1412 Gildcrest Dr.

EMAIL

SIGNATURE



PRINTED NAME

GERALDINE BRASETH-PALMER

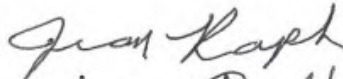
ADDRESS

1602 Gildcrest Drive - LaGrande, Or; 97850

EMAIL



SIGNATURE



PRINTED NAME

Jean RAPH

ADDRESS

1509 Madison Ave LaGrande, OR 97850

EMAIL

jraph19@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Damon Sexton*
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL sexton.damon@gmail.com

SIGNATURE *Coy Sexton*
PRINTED NAME Coy Sexton
ADDRESS 401 Balsa Street, La Grande, OR 97850
EMAIL coytris@gmail.com

SIGNATURE *Melinda McGowan*
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lois Barry*
PRINTED NAME LOIS BARRY
ADDRESS P.O. Box 566, LA GRANDE, OR 97850
EMAIL loisbarry31@gmail.com

SIGNATURE *Cathy Webb*
PRINTED NAME CATHY WEBB
ADDRESS 1700 Cedar St. LA GRANDE, OR 97850
EMAIL thinkski@gmail.com

SIGNATURE *JoAnn Marlette*
PRINTED NAME JOANN MARLETTE
ADDRESS 2031 Court St. #8, Baker City, OR 97814
EMAIL joannmarlette@yahoo.com

SIGNATURE *Keith D. Hudson*
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL KeithDhudson@gmail.com

SIGNATURE *Laura Elly Hudson*
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, LaGrande OR 97850
EMAIL rlwd1910@gmail.com

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande OR 97850
EMAIL acavinot@ecu.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR. 97850
EMAIL joehorst@conic.com

SIGNATURE *Angela Sherer*
PRINTED NAME Angela Sherer
ADDRESS 91 W. Hawthorne Dr La Grande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Merle E Comfort*
PRINTED NAME MERLE E COMFORT
ADDRESS 209 SWAPLO LA GRANDE OR 97850
EMAIL merlecomfort@gmail.com

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL rmaille@icloud.com

SIGNATURE *Carol Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Beketen Lane La Grande OR.
EMAIL carolsummers1938@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 4th Street - LaGrande - OR 97850
EMAIL

SIGNATURE *Gerald D. Juniper*
PRINTED NAME Gerald Darwin Juniper
ADDRESS 406 4th St. LaGrande, OR. 97850
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97w Hawthorne Dr, La Grande, OR 97850
EMAIL asherer@frontier.com.

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 madelaire Dr. La Grande, OR 97850
EMAIL hnull@conic.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,

Vickie R. Mann

Name:

Address: P.O. Box 449 UNION, Ore 97883
~~La Grande, OR 97850~~

Stop!!!



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Virginia Mammen

Mailing Address (mandatory) 405 BALSA
La Grande, OR 97850

Phone Number (optional) () _____ Email Address (optional) gmammen@com

Today's Date: 6-20-19

Do you wish to make oral public testimony at this Hearing: Yes X No _____

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

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1 decision-making process.
2 Please remember as you reach your decision,
3 that you'll be gone tomorrow, but we'll be living with
4 the effects of your decision, positive or negative, for
5 years to come. Thank you very much.
6 HEARING OFFICER WEBSTER: Thank you.
7 Following Ms. Marlette we will be hearing from
8 Virginia Mammen.
9 Good evening.
10 MS. MARLETTE: Hi. Thank you for allowing us
11 to speak to you this evening. I am JoAnne Marlette,
12 2031 Court Street, Baker City, Oregon. You will
13 probably hear pretty much what I said last night.
14 As you are all well aware, Oregon has an
15 existing utility corridor which was set in place during
16 the administration of Governor Tom McCall. I knew Tom
17 McCall; as a matter of fact, I typed the first draft of
18 his mother, Dorothy Lawson McCall's, book, "Ranch Under
19 the Rimrock."
20 It was his love of this ranchland in Central
21 Oregon that led him to his commitment to preserve farm
22 and forestland. And in the early 1970s, as governor, he
23 signed Senate Bill 100, which created a statewide land
24 use regulatory system aimed at preserving farm and
25 forestland.

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1 Knowing how important preserving farm and
2 forestland would be, a utility corridor was set from
3 Boardman, Oregon, to the Idaho border, so that issues
4 such as what we are having right now would not exist.
5 All utilities would have their own corridor and would
6 not encroach on farm and forestland in other parts of
7 the state. Idaho Power has consistently claimed using
8 our existing utility corridor would cost too much money.
9 From what I could find, it appears to me that
10 Idaho Power is not going through our public lands
11 because the environmentalists would be after them like
12 stink on a dog, perhaps even suing Idaho Power for all
13 the reasons we are objecting to it coming through our
14 private property here in northeastern Oregon. I'm sure
15 they don't want to spend tons of their money defending
16 this B2H proposed project through our public lands with
17 impending threats of lawsuits at their every turn.
18 Also, I find quite a discrepancy as to need.
19 My research shows the market is not growing. Idaho
20 Power's billed sales for the last 10 years have been
21 essentially flat, if not declining. That is supported
22 by reports from the US government and Idaho Power's own
23 data.
24 And I will be providing further written
25 comment prior to the July 23rd deadline. Thank you so

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1 much.
2 HEARING OFFICER WEBSTER: Thank you.
3 Following Ms. Mammen, we will be hearing from
4 Adrian Henderson.
5 SECRETARY CORNETT: Because we are recording
6 it and we have people on the phone, if everybody could
7 speak into the mic, it will be much more helpful for us
8 and those on the phone.
9 MS. VIRGINIA MAMMEN: I'm Virginia Mammen. I
10 live at 405 Balsa here in La Grande. I have lived on
11 Balsa, off Modelaire/Hawthorne Loop for 50 years, and I
12 love and appreciate the area in which I live. Through
13 those years I have learned to appreciate the area in
14 which I live. Although, I have learned that the land
15 around me, not only under my house, but far up into the
16 hills above me are to be respected as much as my
17 neighbors are to be respected.
18 During that time I have also learned that
19 although I have taken good care of my body, age and time
20 demand that I not push it any farther than necessary or
21 it will break down in one place or another.
22 So too the hills west above my house. As I
23 have watched this land creak and grown with the seasons,
24 it has been plagued with fire, drought, and flooding. I
25 have learned it is to be respected as a living being and

Page 37

1 should not be pushed. In 2010, this area was determined
2 to be a hazard area and unstable. It moves and shifts
3 with the nudges from Mother Nature making appearances
4 down below my house with cracks and other minor
5 nuisances.
6 I don't see any respect for our hills or me or
7 my neighbors if B2H comes into our area, which is rated
8 "high" or "very high" as a landslide area, while not
9 just to give our hills an occasional push, but to slam
10 them with dynamite, create massive holes, introduce
11 excessively heavy weight and strip them of their beauty,
12 pride, and spirit while opening the opportunity for
13 causing the changing of the underground water paths and
14 land stability and introducing possible new elements for
15 fire hazard. Any one of these could create catastrophic
16 danger to the formerly quiet neighborhood below that I
17 have enjoyed for 50 years.
18 The disturbance of a soil and track-out would
19 pollute the clean area which we cherish. Then there is
20 the noise pollution from both construction and completed
21 project. To me this is not progress in the making but a
22 total lack of respect and appreciation for both people
23 and the land.
24 I would invite you to come walk my
25 neighborhood with me, on the streets meant not for

Page 38

1 massive construction trucks -- that is
2 Modelaire/Hawthorne Loop -- but to serve the hospital
3 when needed for the residents of 37 homes of men, women,
4 and children who walk -- I might add, there are no
5 sidewalks on that loop -- or drive daily, a neighborhood
6 which you could destroy, seemingly without giving it
7 another thought. Thank you.
8 I will be providing written testimony another
9 time.
10 HEARING OFFICER WEBSTER: Thank you.
11 MS. ADRIAN HENDERSON: Hello. I'm Adrian
12 Henderson. Thank you very much for letting me speak
13 today. I live at 219 Harrison in La Grande, Oregon.
14 Thank you for allowing me to testify.
15 You've already heard about the problems with
16 noise and invasive weeds. I am concerned with the lack
17 of requiring Idaho Power to make sure weeds do not go to
18 seed or make them clean their equipment before it leaves
19 the road or moves from one person's property to another.
20 As a member of the Chickasaw/Choctaw/Umatilla
21 tribe, I want to remind you of how important this is to
22 the tribes because of how it impacts our first foods.
23 Comments were provided by the tribes about this.
24 You also heard from the developer that they
25 would be working with the counties to make more changes

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1 to their weed plan. What I'm concerned about is that
2 the only thing Idaho Power is required to do are the
3 things that you include in the site certificates. The
4 site certificates need to state that Idaho Power must
5 comply with the state rules that require them to protect
6 the land from seeds being spread from their transmission
7 line, as long as the lines are in place. This is a
8 major problem, and why we need to be listening to the
9 people who are here today.
10 A statement by the developer that they plan to
11 fix something later means nothing if you do not include
12 it in the site certificate. The public will no longer
13 have the right to appeal what they are doing; in fact,
14 they don't even need to receive the information about
15 what the developer is actually including in their weed
16 plans.
17 This is why you will be receiving in writing
18 comments from me and others in this audience about what
19 needs to be changed.
20 I hope you will address the many problems you
21 are hearing about or denying Idaho Power permission to
22 build a transmission line that will cause huge damages,
23 increase our electric costs, but give us nominal
24 benefits.
25 Unlike Idaho Power customers, we are not

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1 having blackouts, equipment failures, or other problems
2 that this utility company are having. Maybe they would
3 have so many more problems if they would develop
4 energy -- so many less problems if they would develop
5 energy resources in Idaho instead of moving in hundreds
6 of miles of high-voltage transmission lines to get it to
7 their customers.
8 Thank you very much. Appreciate it.
9 HEARING OFFICER WEBSTER: Thank you.
10 Following Mr. Rosenbaum, we will hear from
11 Lois Barry.
12 MR. MICHAEL ROSENBAUM: A little bit of an
13 aside here, interestingly enough, I received an email
14 from my insurance company today: "Help protect your
15 home from wildfire. Find out how. Dear Michael,
16 Wildfires can occur suddenly with little to no warning.
17 We want to help you stay safe and prepared. Review the
18 resources below to learn how to protect yourself and
19 your property from wildfire."
20 I would like to thank the Council for this
21 opportunity to present testimony to the EFSC.
22 My name is Michael R. Rosenbaum. I reside at
23 1402 First Street in La Grande. I first moved to
24 La Grande in 1969, and I have lived here for a total of
25 27 years, having left and returned twice. I work

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1 seasonally for a federal agency and am currently a
2 member of the City of La Grande committee dedicated to
3 wildfire awareness, protection, and preparedness. The
4 views expressed here are my own, and do not represent
5 either my employer or the committee of which I'm a
6 member.
7 According to Wikipedia, there are a total of
8 946 incorporated and unincorporated cities in Oregon.
9 In the 2018 study "Exposure of human communities to
10 wildfire in the Pacific Northwest," researchers Joe H.
11 Scott and Julie Gilbertson-Day of Pyrologix and
12 Richard D. Stratton of the USDA Forest Service, ranked
13 La Grande number 40 of 50 communities with the highest
14 community exposure ranking with 5,426 housing units
15 exposed to wildfire and a burn probability rate of 138.
16 You will note that La Grande is edged by open
17 grasslands and timber on its southwest, west, and
18 northwest flanks, two of these three directions housing
19 the proposed Boardman to Hemingway transmission line.
20 The June 30, 2016, revision of the Union
21 County Wildfire Protection Plan, the CWPP, details in
22 the Union County Risk Assessment Summary of the
23 Northeast Oregon Multi-Jurisdictional Natural Hazard
24 Mitigation Plan, wildfire that either did encroach or
25 had the potential to put La Grande at risk. It details

June 20, 2019
Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chairman Beyeler and Members of the Council:

I am Virginia Mammen and I have lived on Balsa, off Modelaire /Hawthorne Loop, for fifty years and I love and appreciate the area in which I live. Through those years I have learned that the land around me, not only under my house, but far up into the hills above are to be respected as much as my neighbors are to be respected. During that time I have also learned that although I have taken good care of my body, age and time demand that I not push it any farther than necessary or it will break down in one place or another.

So too the hills just to the west, above my house. As I have watched this land creak and groan with the seasons it has been plagued with fire, drought and flooding. I have learned it is to be respected as a living being and should not be pushed. In 2010 this area was determined to be a hazard area and unstable. It moves and shifts with the nudges from Mother Nature making appearances down below in my house with cracks and other minor nuisances.

I don't see any respect for our hills or me or my neighbors if B2H comes into our area which is rated "high" or "very high" as a landslide hazard while not just to give our hills an occasional push but to slam them with dynamite, create massive holes, introduce excessively heavy weight and strip them of their beauty, pride and spirit while opening the opportunity for causing the changing of underground water paths, and land stability, and introducing possible new elements for fire hazard. Any one of these could create catastrophic danger to the formerly quiet neighborhood below. The disturbance of the soil and trackout would pollute the clean air

we cherish. Then there is the noise pollution from both construction and the completed project. This to me is not progress in the making, but a total lack of respect and appreciation for both people and the land.

I would invite you to come walk my neighborhood with me, on the streets meant, not for massive construction trucks but to serve the hospital when needed and for the residents of thirty-seven homes of men, women and children who walk (there are no sidewalks) or drive daily— a neighborhood which you could destroy, seemingly without giving it another thought.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, OR 97850
gmammen@eoni.com



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Virginia Mammen

Mailing Address (mandatory) 405 Balsa
La Grande Oregon

Phone Number (optional) () _____ Email Address (optional) vmammen@conl.com

Today's Date: 6-26-2019

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony
(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

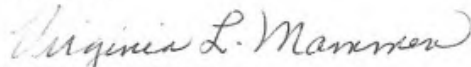
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

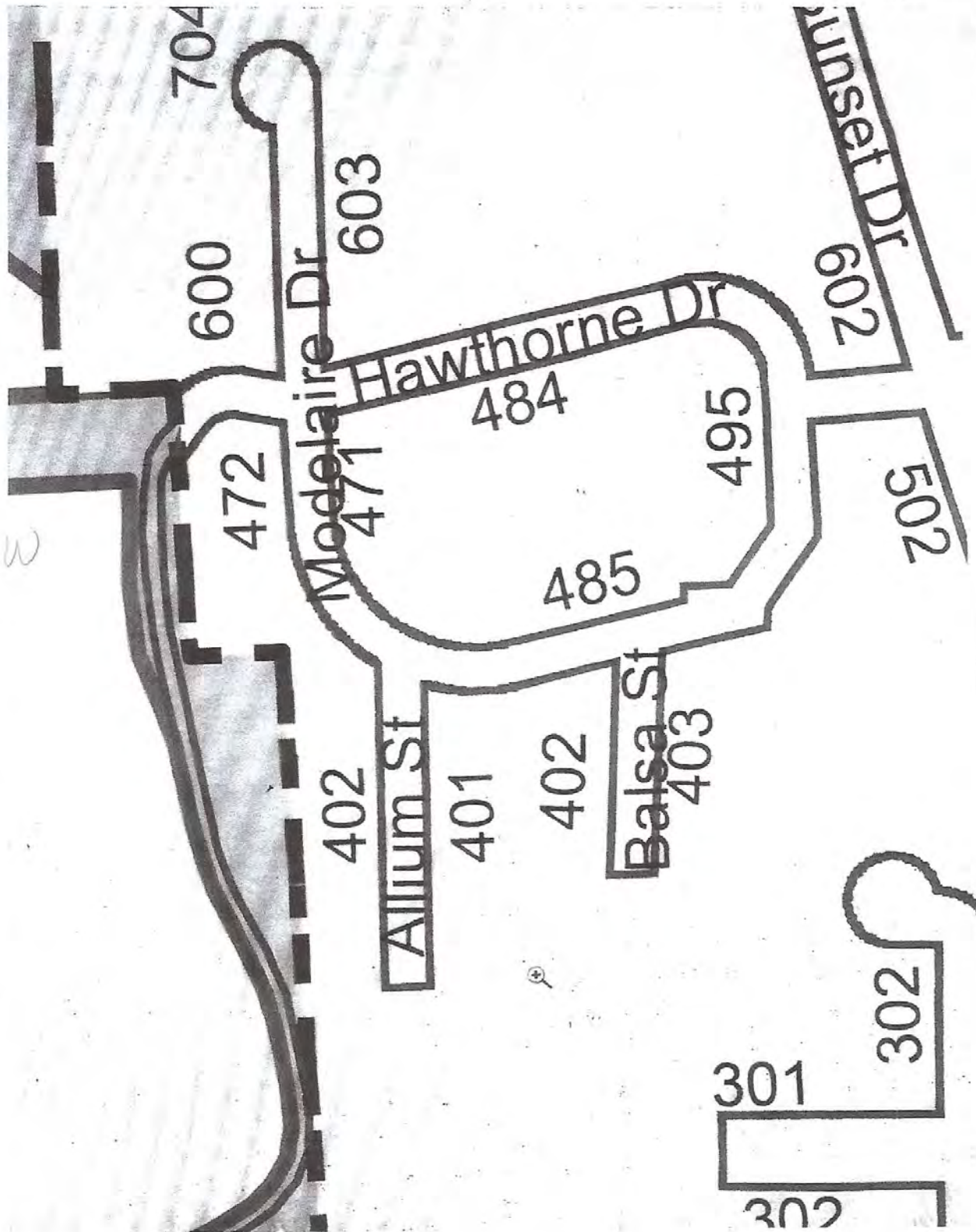


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

7/25/2019

Gmail - Modelaire Roadway Specifications

Exhibit 6



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



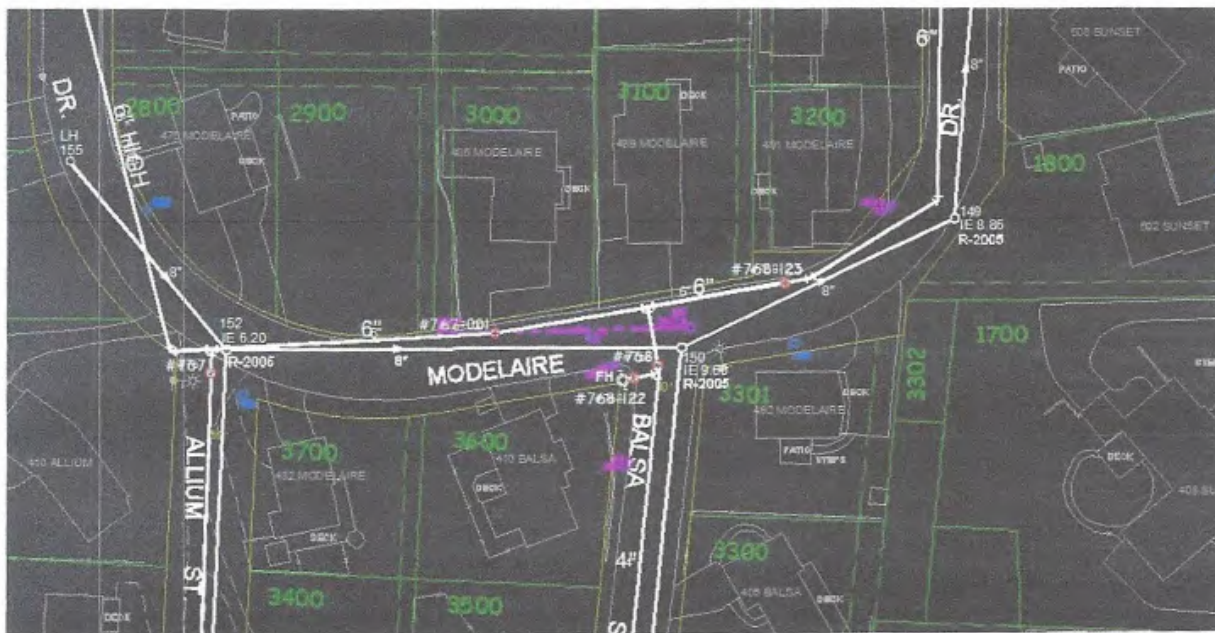
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

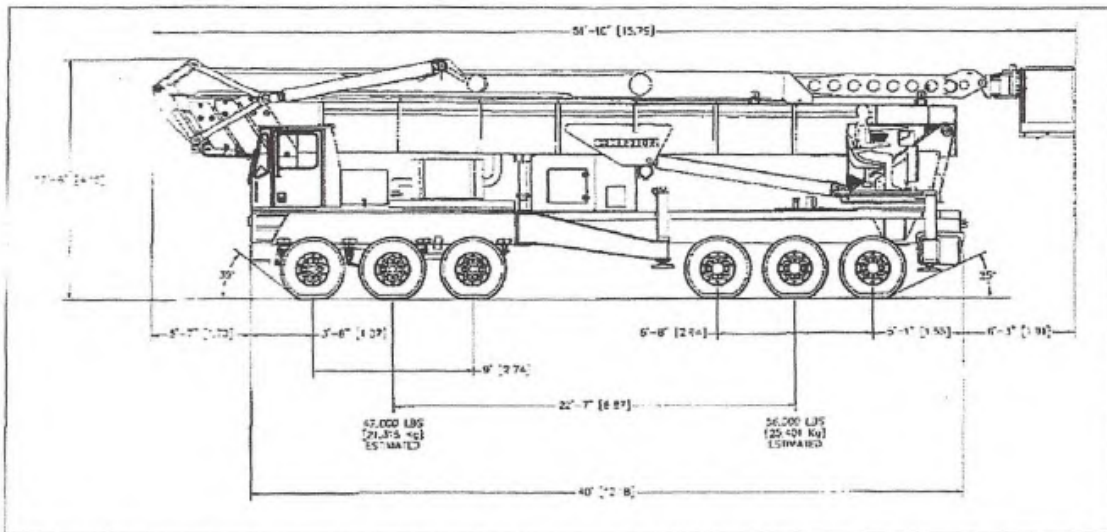


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
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ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

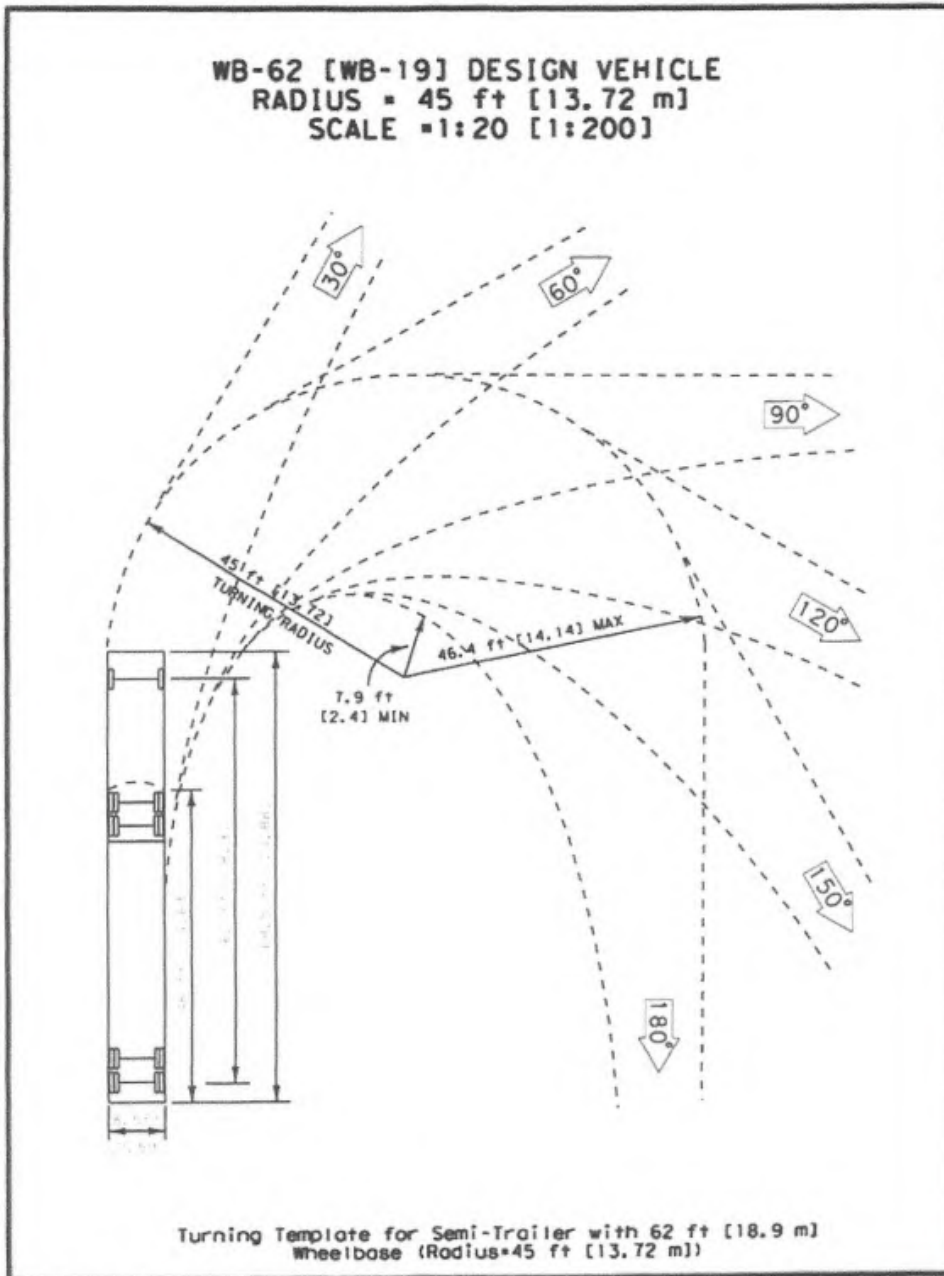


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

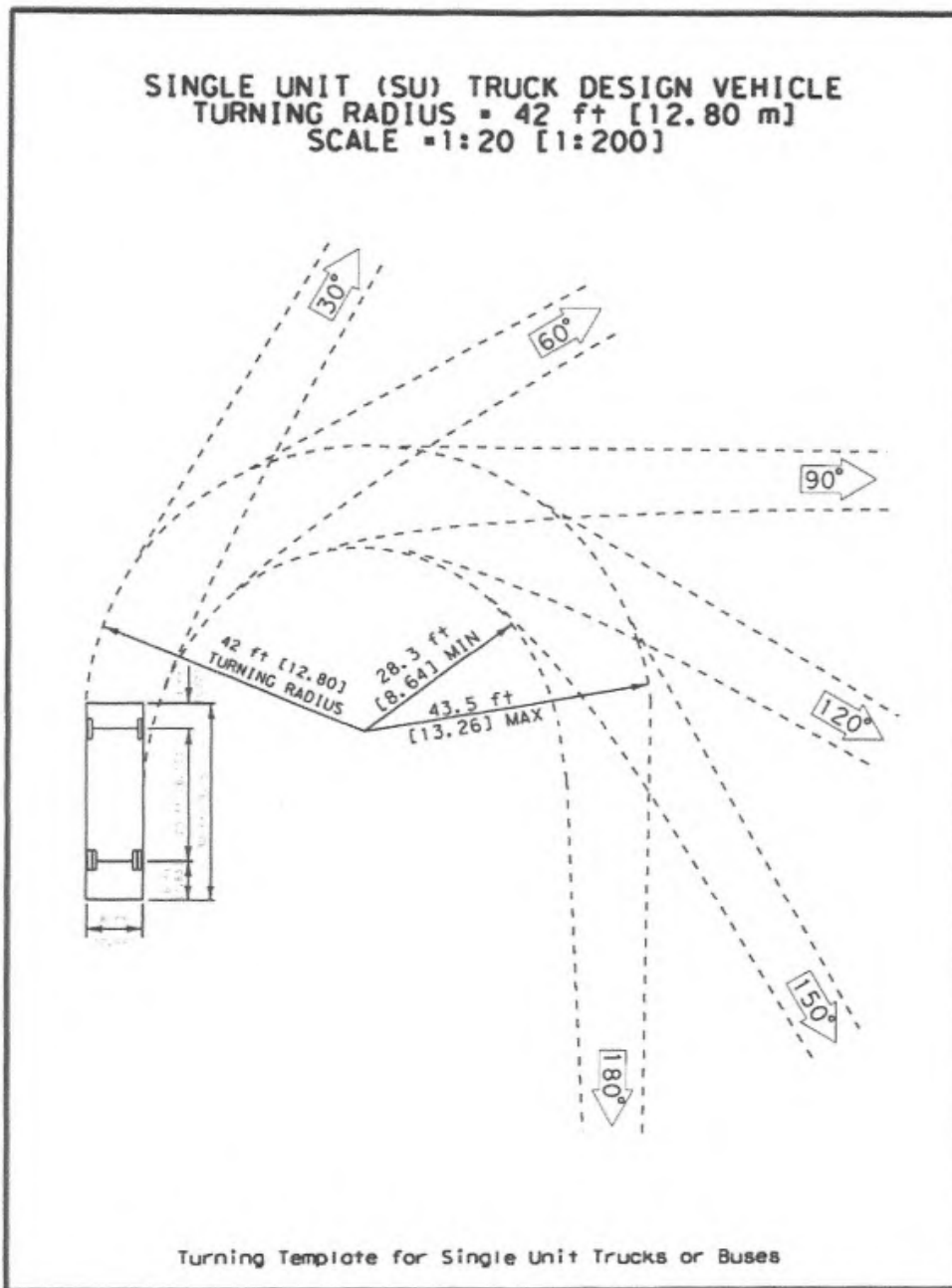


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

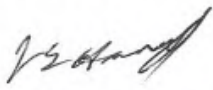
Section 17. TRUCK ROUTES

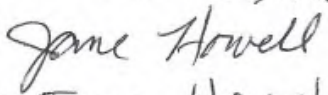
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

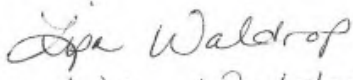
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

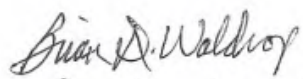
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

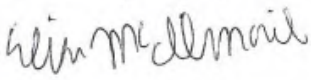
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SIGNATURE 
PRINTED NAME James E. Howell II
ADDRESS 482 Modelaire Dr
EMAIL j.howell2@frontier.com

SIGNATURE 
PRINTED NAME Jane Howell
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SIGNATURE 
PRINTED NAME Lisa Waldrop
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EMAIL ldjw62@gmail.com

SIGNATURE 
PRINTED NAME BRIAN D. WALDROP
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EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRES DR.
EMAIL mcilmail154@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

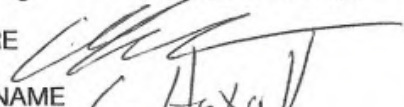

Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

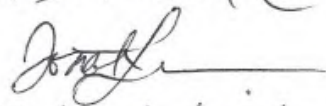

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CHRIS Huxell @ EMAIL.COM

SIGNATURE

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Jonah Lindeman
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Marie Skinner
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marieskinner@hotmail.com

SIGNATURE

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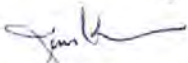
ADDRESS


EMAIL

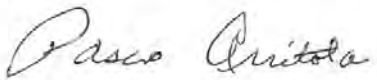
Blake Bars
Blake Bars
1101 G Ave La Grande
blakebars@gmail.com


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SIGNATURE 
PRINTED NAME Dale Mammen
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EMAIL dmammen@comi.com


SIGNATURE 
PRINTED NAME Jim Kreider
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La Grande, OR 97850
EMAIL jkreider@campblackdog.org

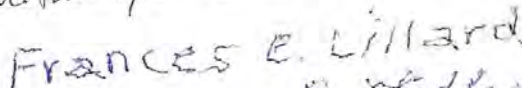
SIGNATURE 
PRINTED NAME Judie Arritola
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SIGNATURE 
PRINTED NAME Pasco Arritola
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EMAIL PSTOLA@CHARTER.NET


SIGNATURE 
PRINTED NAME John Bazuta
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EMAIL

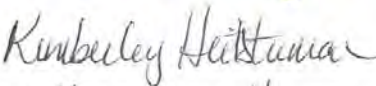
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SIGNATURE 
PRINTED NAME Andrea Galzow
ADDRESS 486 Hawthorne DR, La Grande
EMAIL foreverfamily33@aol.com


SIGNATURE 
PRINTED NAME Frances E. Lillard
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EMAIL

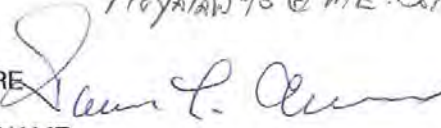
SIGNATURE 
PRINTED NAME Brent H. Smith
ADDRESS 410 Allium St
EMAIL smithbrent@gmail.com

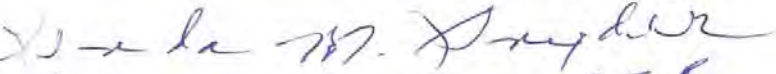
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

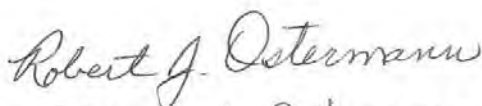
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
ADDRESS 2409 CENTURY LP, LA GRANDE, OR 97850
EMAIL kimheitstuman@hotmail.com


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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
ADDRESS 2909 E. M. Ave,
EMAIL Hoyakaw95@ME.com


SIGNATURE 
PRINTED NAME Dennis L. Allen
ADDRESS 410 Balsa Street LaGrande, Oregon 97858
EMAIL N/A

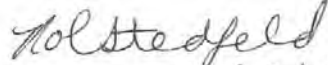
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire Dr
EMAIL


SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

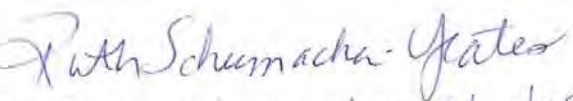
SIGNATURE 
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr La Grande, OR 97850
EMAIL

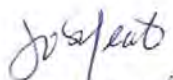
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SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Modelaire Dr
EMAIL jondwhite418@gmail.com

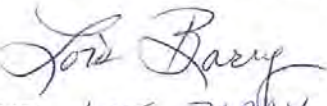
SIGNATURE 
PRINTED NAME Robin Stedfeld
ADDRESS 485 Modelaine Dr. La Grande
EMAIL rstedfeld@yahoo.com

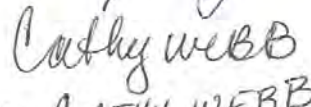
SIGNATURE 
PRINTED NAME Rita Allen
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EMAIL

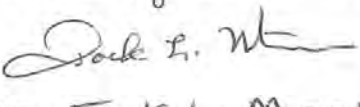
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
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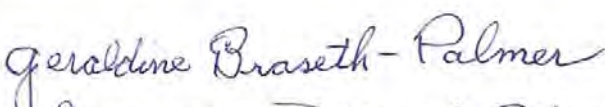

SIGNATURE 
PRINTED NAME JOHN YEATES
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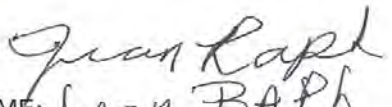
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SIGNATURE 
PRINTED NAME Lois BARRY
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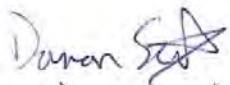
SIGNATURE 
PRINTED NAME CATHY WEBB
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EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
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EMAIL Buff Martin 27 @GMail .com

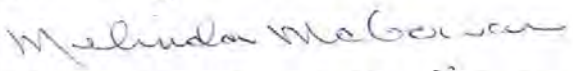
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
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EMAIL 


SIGNATURE 
PRINTED NAME Jean BAPH
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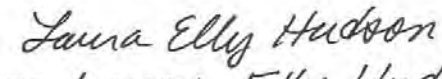
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SIGNATURE 
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EMAIL ellyhudson@gmail.com

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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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SIGNATURE *Anne G. Cavinato*
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EMAIL asherer@frontier.com

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SIGNATURE *Robert J. Sherer*
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SIGNATURE *Heather M. Null*
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
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SIGNATURE *Robin L. Maille*
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SIGNATURE *Carol S. Summers*
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SIGNATURE *Caroline Kaye Juniper*
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EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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PRINTED NAME
ADDRESS
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PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

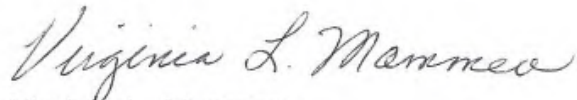
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

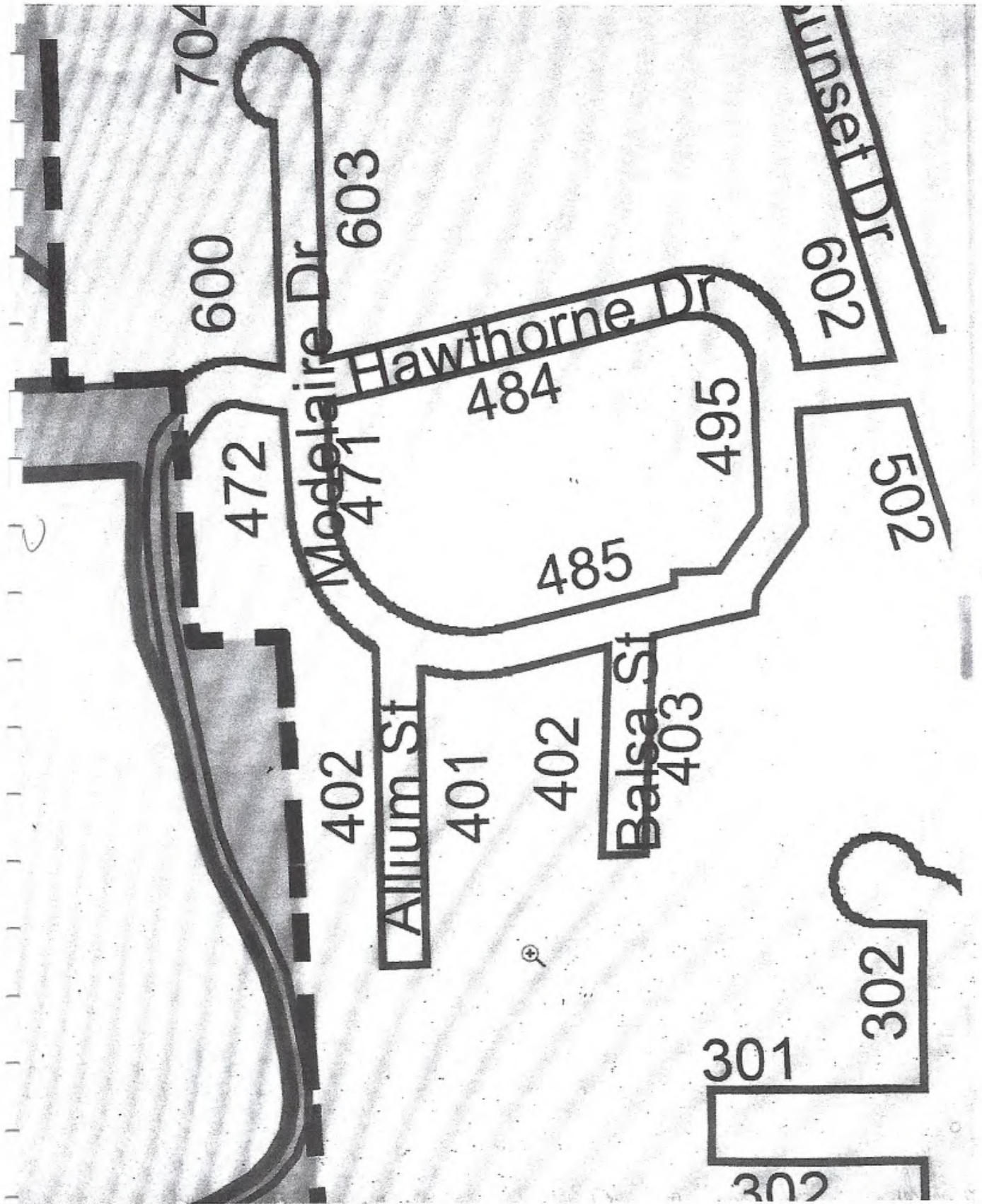


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



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11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



8/5/2019

Oregon Secretary of State Administrative Rules

Exhibit 4a

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Department of Environmental Quality

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

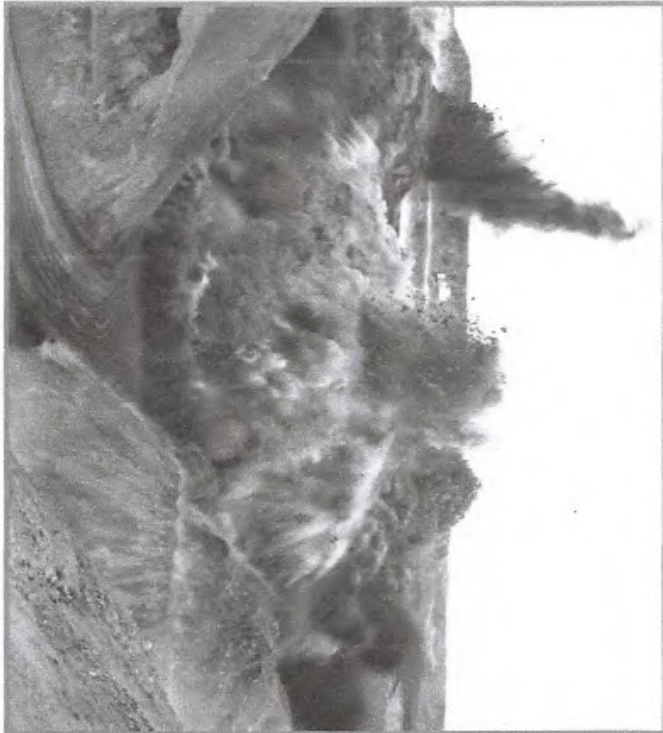
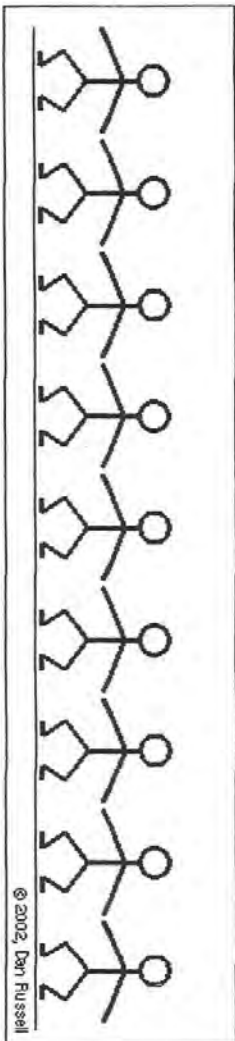


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

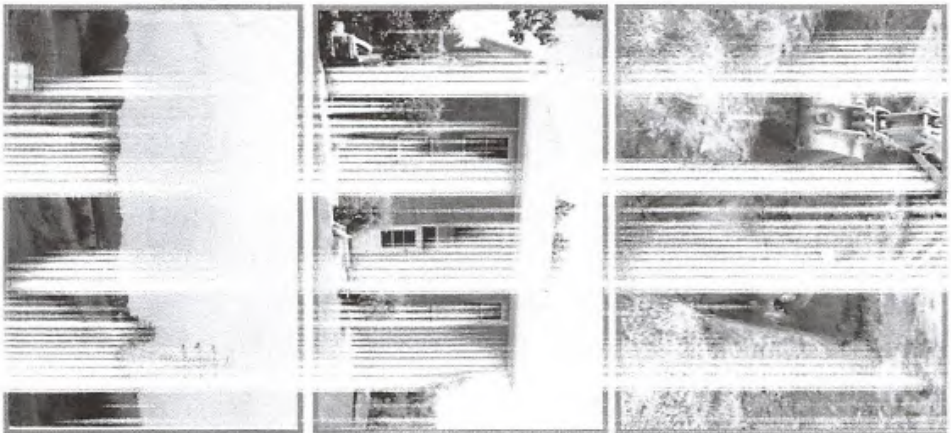
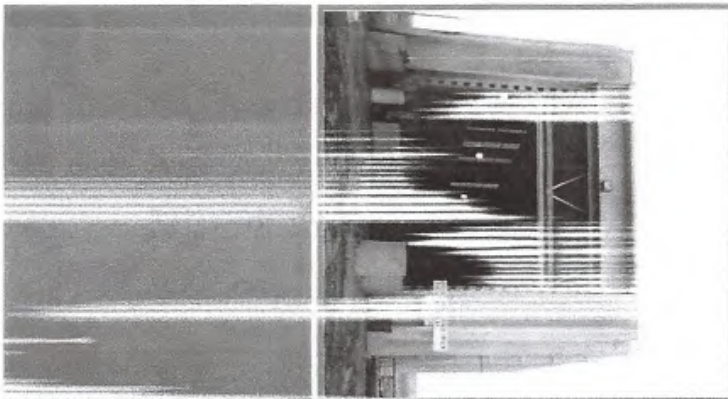
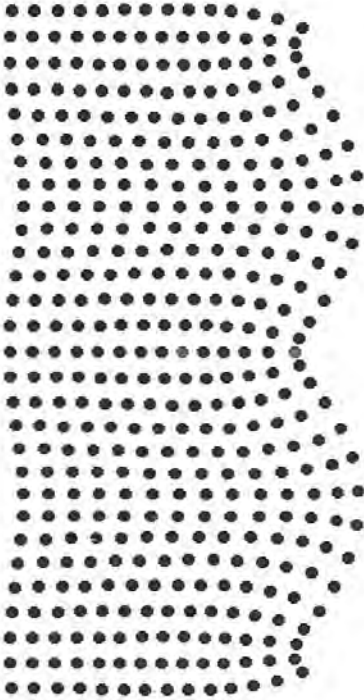


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



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Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

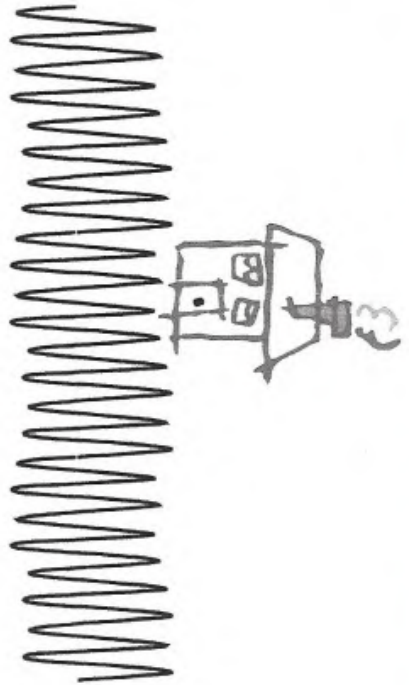
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

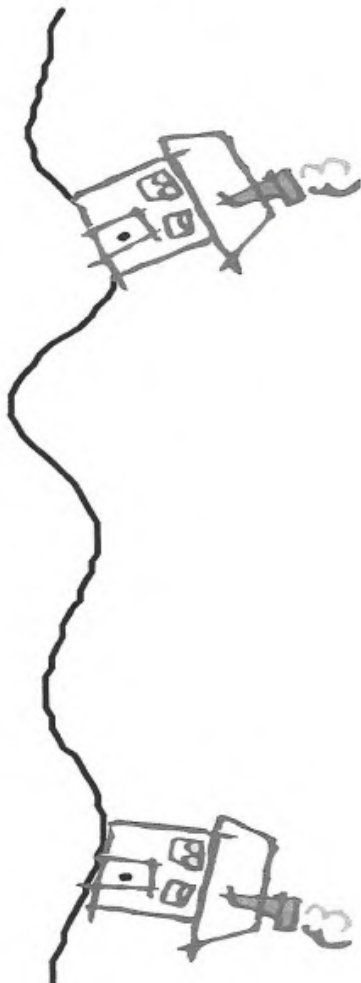


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



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A noisy problem - Harvard Health

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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



(<https://medcenterblog.uvmhealth.org/>)

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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

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acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



Front Psychol. 2013; 4: 578.

PMCID: PMC3757288

Published online 2013 Aug 30. doi: [10.3389/fpsyg.2013.00578](https://doi.org/10.3389/fpsyg.2013.00578)

PMID: [24009598](https://pubmed.ncbi.nlm.nih.gov/24009598/)

Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10/12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)

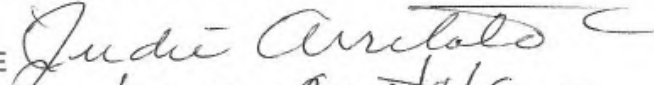


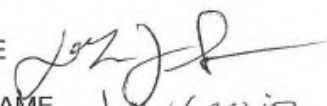
SCIENCE
NEWS


EXPERT
OPINION

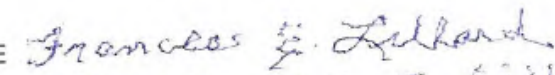
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE 
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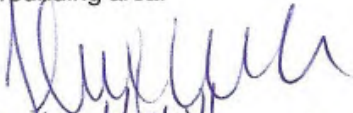
SIGNATURE 
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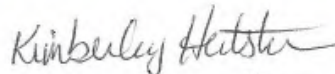
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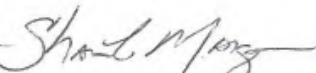
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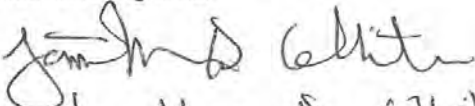
ADDRESS

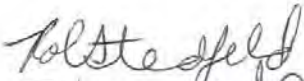
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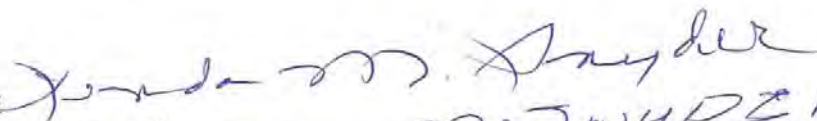
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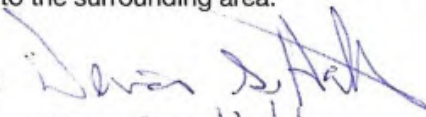
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SIGNATURE



PRINTED NAME

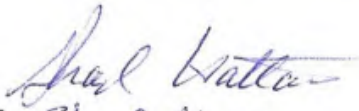
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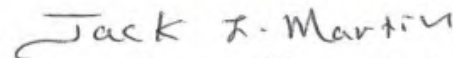
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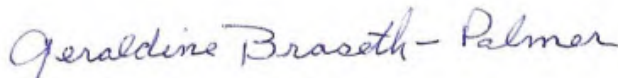
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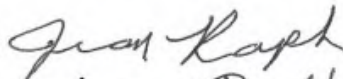
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TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 6:36 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order May 23, 2019
Attachments: Scan 2019-8-15 18.14.48.pdf

Chairman Beyeler and Members of the Council:

I have attached a copy of a letter to you expressing the many reasons the B2H Project as proposed through Union County, primarily around the City of La Grande, is unacceptable. I request that the Site Certificate for Idaho Power be denied.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 12, 2019
Energy Facilities Siting Council
C/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97850

Subject: Idaho Power Application for Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

To: Chairman Beyeler and Members of the Council

Many thoughts are running through my head as I write this letter. As I have talked with numerous neighbors in the Modelaire/Hawthorne Loop area and others, I have learned that I represent many who have these same thoughts and concerns. I have penned several letters which address specific concerns in accordance to the preferred manner. However, the idea of writing a letter to a Council such as yourselves, having the requirements before them that have to be met in composing such a letter, is totally daunting for most. Knowing that B2H might be coming has created an atmosphere of fear both of the known and unknown about it.

I am angry (and when I have a righteous anger I feel it necessary to express my thoughts and opinions) as well as those with whom I have spoken, therefore I am throwing aside the rules and regulations of the correct composure and am expressing some of these concerns which cannot be address by any rules, regulations or standings except by those of respect, concern for a fellow neighbor, just plain common sense and perhaps OAR 345-022-0110 which, unless the words are completely hollow, is supposed to stand as a protection for me and my fellow Oregonians in matters of health and safety.

Let me say that the precise route that B2H is planning through Union County close to the City of La Grande has not been sufficiently shown or impacts addressed to any of us as to exactly where or when anything will occur so we cannot fully/correctly address what our concerns and fears are, except that there are many.

Geologic Hazard Zone

One of the many big concerns for the west and south hills residents is that the area is a geologic hazard area and is subject to slides. Not knowing just where the towers will be placed and where the heavy equipment will disrupt the terrain, how the water flow patterns will be disturbed by this disruption and how much the slippage already occurring will be enhanced create great concern. Most of the homes in this area have experienced cracking foundations, cracks in sheet rock, pulling away of walls, breaks in water lines and sewer lines, water all of a sudden appearing in one's yard or basement—all because of the way weather and Mother Nature affect the creeping slide

area. Streets and driveways also suffer from the slippage and develop cracks and sink holes. These are a knowns and have been accepted because they have been slow and manageable. La Grande is rated as having one of the highest presence in the state for radon. After talking with the Oregon Department of Health Environmental Section, I learned that its flow could also be an added cause of concern with any further additional disturbance of this area. Intentionally adding a dangerous stress to this already stressed area is not only unnecessary but unpardonable.

Noise

OAR 345-02200110 speaks to before, during and after. I have previously said and will reiterate that a portion of the route of the proposed line across the west and south hills of La Grande is extremely close to many neighborhoods comprised of numerous homes, a hospital and several schools. There are people of all ages with many life/health challenges. Noise of construction, whether it be vehicles, blasting etc for twelve hours a day is, for most people, more than annoying, but for some is frightening and for some outright dangerous. Some of the people so affected would be those employees who need to sleep during the day, and those who are ill, elderly, or young children. In these neighborhoods along the route there are veterans, people with PTSD, and tinnitus and autism who are affected in many ways by a variety of noises. The grade school serving the special needs children of La Grande is within a half mile of the boundary of the project. These children who also live in the area would most certainly be disturbed by these noises created by the construction project. Because of being on the edge of town where it is quiet, this area is normally a safe/healthy environment for these people. At this point I have only addressed the construction noise. For some the after built noise (humming, buzzing, popping) of the wires would be a never ending annoyance and concern.

Fire Danger

La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire. When one lives close to an area that has natural growth, such as timber and grasses, they are aware there is a possibility of fire danger and we prepare ourselves for that possibility. The west hills experienced the Rooster Peak Fire in 1973. The area has become more populated since that time, and we all hope that nothing like this ever occurs again although the fear never really leaves. Because of the ever increasing wildfires in Oregon due to many natural and accidental causes and of the recent fires in California due to high tension wires such as in the B2H project this fear for safety from fire has reared its ugly head again. I talked with my insurance agent about fire insurance and he shared with me that many insurance companies because of the California fires are reviewing their fire coverage for urban wildland interface communities and the likelihood of greatly increased premiums or, the lesser but possible, chance of coverage restrictions/exclusions for some areas.

Property Devaluation


It is already a fact that some homeowners in areas of La Grande are having difficulty selling their homes because of the proximity to electric lines. There are more homes currently for sale on the Modelaire/Hawthorne Loop than I can ever remember. With the addition of the B2H lines bringing with it the above listed concerns it is probable that this project is going to make large areas of La Grande into less desirable or even totally undesirable places to live. There are also those who have timber holdings in this area that will be destroyed forever taking away the opportunity of leaving a legacy for future generations.

I was able to obtain a copy of a letter (see enclosed) sent to Senator Jeff Merkley by Norm Pallus, Public Works Director for the City of La Grande who has since retired. I was not able to obtain the maps to which he refers but the message that the potential location of the proposed power line could create problems for the City in a variety of ways is fully expressed.

There are many, many other long lasting reasons, besides safety or health (fear and anxiety are closely related to health), that would impact the community and others indicating that this an unacceptable route for this project across the west and south hills of Union County above La Grande. These include the pristine beauty, wild animal habitats and trails, Historic Oregon Trail sites and a beloved park and recreation site Morgan Lake. For our community the rejected BLM Environmental Preferred Route would be a much better choice with much less impact to the Oregonians who live and vacation in this tiny bit of paradise.

Considering the many ways this project could impact the daily lives of so many people, I am requesting that you deny the Idaho Power Site Certificate.

Sincerely,



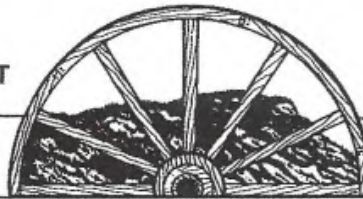
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gmammen@eoni.com

PUBLIC WORKS DEPARTMENT

800 X Avenue
La Grande, OR 97850
Phone (541) 962-1325
FAX (541) 963-3608

CITY OF



LA GRANDE

THE HUB OF NORTHEASTERN OREGON

Honorable Senator Jeff Merkley
310 SE Second Street, Suite 105
Pendleton, Oregon 97801

Re: B2H Power Line

Dear Senator Merkley,

On behalf of the Mayor and Council of the City of La Grande, I am writing to you to address potential adverse impacts to the City of La Grande related to the Boardman to Hemmingway Power line where it passes to the south of the City in the Grande Ronde Valley. As the representative of the City of La Grande to the Union County B2H Committee, these impacts were discussed with the Committee; however, I would like to make sure that you are personally aware to assist you understanding the issues from the City's perspective. The following concerns may create a hardship for the City depending on the final location of the proposed power line:

Future Drinking Water Reservoir Site on South 12th Street – The City has addressed with the property owner and our consultants about the need for an additional drinking water storage reservoir on the south end of town on 12th Street. One of the proposed power line locations will place this new system in the immediate proximity of the site location that has been under consideration. Construction of the proposed power line could restrict or limit the City's ability of being able to consider this site for water storage to meet the future needs of the area, especially if the property falls within the B2H easement area. This area is shown in pink on the attached map.

Existing Drinking Water Reservoir Site Areas – If the new proposed power lines cross any of the existing piping in the area of the reservoirs it could adversely impact our access and maintenance of these existing drinking water pipeline sections. I have personally seen this water line rupture as a result of heavy equipment working on top of the pipeline. If this were to occur, it could jeopardize the powerline itself. This water line serves the entire city with drinking water and a power line of the nature of what is proposed may result in conflicts when we maintain and/or repair this water supply system; when Idaho Power maintains, their power line; and the potential for damage to our drinking water line when they are constructing the power line. The existing two reservoirs are shown on the attached map and reflected inside of the area shown in yellow.

The Beaver Creek Supply Drinking Water Line – La Grande has a drinking water supply line that takes water from the La Grande Reservoir located 17 miles south of La Grande and transports water to the storage reservoir just south of La Grande. Any easements placed over this water line may restrict the City's ability to repair, maintain, or replace this line when the need arises. Working within a power line easement of this size usually requires a lengthy permitting and review process which has added costs and could severely limit our ability to make timely repairs. In addition to those limitations, some construction equipment may not be able to work directly under the power lines because of the safety risks that can occur from electrical arcing of the high voltage lines. These restrictions usually increase the costs of performing these kinds of jobs. This water pipeline is shown in orange on the attached map.

Construction of a Water Treatment Plant – In the future, state and federal regulatory agencies have indicated that the Safe Drinking Water Act may require municipal ground water sources to be treated with a water treatment plant. If the City were to construct a treatment facility, the logical location would be in the vicinity of the existing drinking water storage reservoirs. With a new power line system passing within these prime areas for this facility, it could eliminate the city's ability to construct this facility within the best area or could place limitations on the type of facility to be constructed. Staff believes that it is not a matter of "if they will require a water treatment plant" but "when will they require a water treatment plant." The logical area for a treatment plant is shown in yellow on the attached map.

Anticipated Hydro Generating Capabilities – The City has an existing Water Master Plan that includes the possibility of placing in-line generators within the Beaver Creek water transmission line to generate electricity when a treatment plant is constructed. It is anticipated that there could be as many as four units placed within the water transmission line in the area from Morgan Lake to La Grande. The City believes that because of the nature of two alternating power sources crossing each other, there could be a transfer of power from one system to another. If the City should construct a power generating system with overhead transmission lines, there would be impacts that would be encountered that would restrict the city's ability to recover this power resource revenue. The area shown by the orange line on the map reflects the location the in-line turbines would be installed.

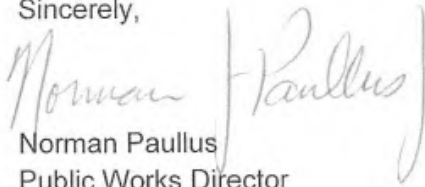
The View Shed – Residents of the City of La Grande, as well as other Grande Ronde Valley residents and visitors to the area have always had the pleasure of minimal man-made disturbances to the natural scenery. This newly proposed mega system of power lines will have a significant impact on the view shed that is already impacted by the existing power supply lines coming from both Bonneville Power and Idaho Power. Not only would this distract from the natural beauty that we have had the pleasure of enjoying in our everyday lives but also could create an adverse impact to tourism

industry in our area. As an example I would relate it to something similar to the recent construction of the wind mills in the Arlington – Biggs area. At first there was a few which weren't too bad and now the area is littered with them.

Morgan Lake Recreational Area – Morgan Lake is a popular, heavily used recreational area since the mid 1900's. Recreational users enjoy areas close to town for brief periods of outdoor enjoyment. If the power lines are to be located within close proximity of the Morgan Lake Recreational area it would detract from the enjoyment of the many people that take advantage of this unique opportunity. With diminished use, it could become an area of little use or need by the public and adversely impact our quality of life. The Morgan Lake Recreational area is shown just off of the map and reflected by a yellow post-it.

While some of the things mentioned above may seem small in nature to some, the improvements proposed by the B2H project are major and permanent in nature. The B2H power line project has a wide range of impacts that reach far greater than those that I have addressed in its' proposed course of construction and establishment throughout its course from Boardman to Hemmingway. Those that I see in the Union County vicinity are major and need to be scrutinized in greater detail. I hope this helps and if you have any questions concerning this project and its impacts to the City please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Norman Paullus". The signature is written in dark ink and is positioned to the right of the typed name.

Norman Paullus
Public Works Director



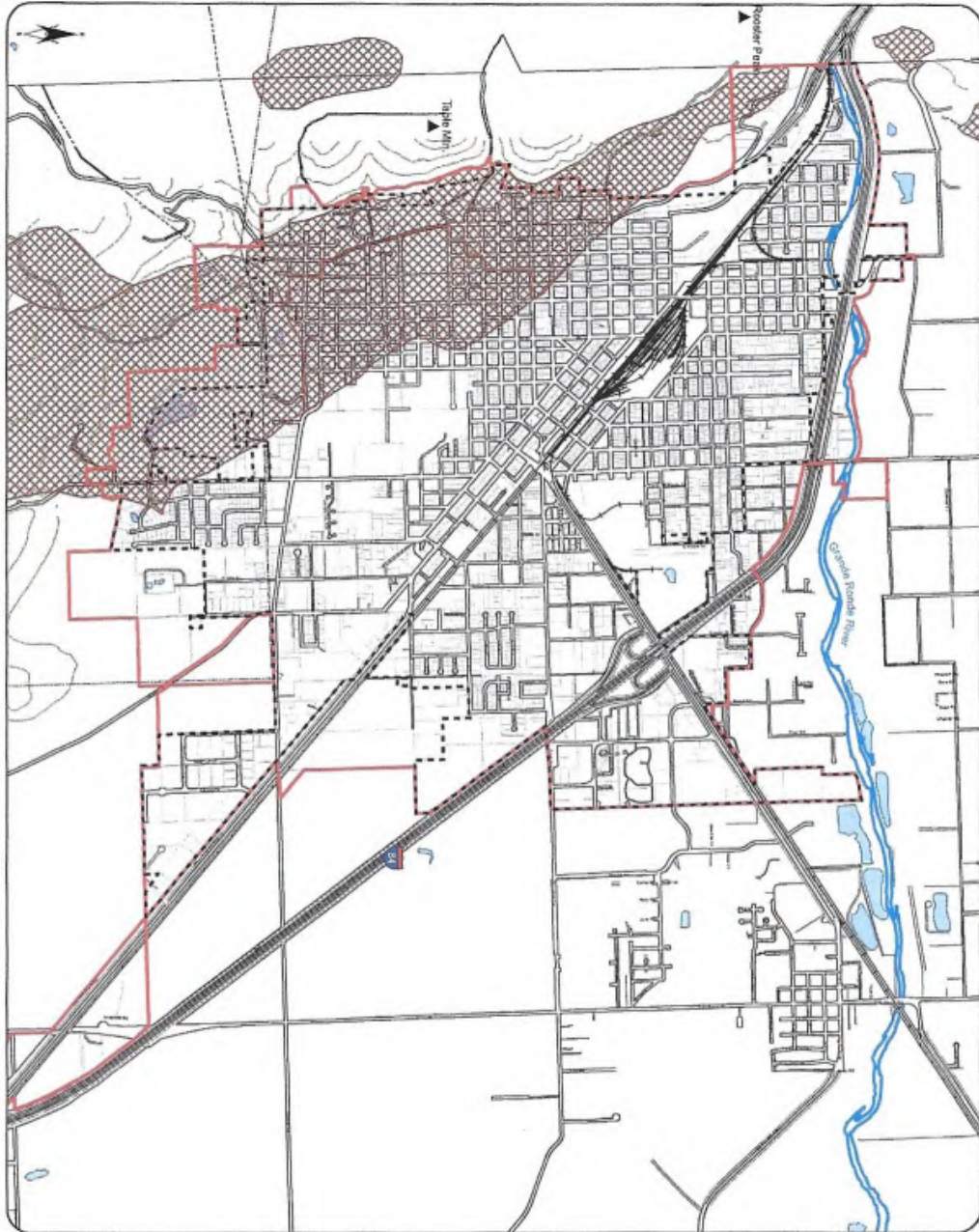
**Oregon Radon Awareness Program
 Indoor Radon Test Results Summary**

ZIP Code	City	Total Number of Locations Tested	Risk of Elevated Radon	Maximum Result (pCi/L)	Average Result (pCi/L)	Percent of Locations with Result \geq 4 pCi/L
97758	Riley	0	No Data Available	0	0.0	0.0
97759	Sisters	9	*Low*	7	1.9	22.2
97760	Terrebonne	4	No Data Available	1.8	1.0	0.0
97761	Warm Springs	0	No Data Available	0	0.0	0.0
97801	Pendleton	39	Moderate	9.2	1.9	10.3
97810	Adams	2	No Data Available	1.8	1.4	0.0
97812	Arlington	3	No Data Available	1.4	1.0	0.0
97813	Athens	0	No Data Available	0	0.0	0.0
97814	Baker City	64	Moderate	20.5	4.0	37.5
97817	Bates	0	No Data Available	0	0.0	0.0
97818	Boardman	0	No Data Available	0	0.0	0.0
97820	Canyon City	4	No Data Available	8.3	3.2	25.0
97823	Condon	0	No Data Available	0	0.0	0.0
97824	Cove	8	*High*	9.7	4.1	37.5
97825	Dayville	0	No Data Available	0	0.0	0.0
97826	Echo	1	No Data Available	7.3	7.1	100.0
97827	Elgin	12	*High*	22.6	4.6	41.7
97828	Enterprise	12	*Low*	3.4	1.8	0.0
97830	Fossil	0	No Data Available	0	0.0	0.0
97833	Haines	3	No Data Available	5.8	2.8	33.3
97834	Halfway	1	No Data Available	6.8	4.3	100.0
97835	Helix	2	No Data Available	2	1.7	0.0
97836	Heppner	2	No Data Available	2	1.9	0.0
97837	Hereford	1	No Data Available	1.5	1.5	0.0
97838	Hermiston	9	*Low*	7.5	1.9	11.1
97839	Lexington	0	No Data Available	0	0.0	0.0
97840	Oxbow	0	No Data Available	0	0.0	0.0
97841	Imbler	3	No Data Available	2.7	2.2	0.0
97842	Imnaha	0	No Data Available	0	0.0	0.0
97843	Ione	1	No Data Available	6.3	5.0	100.0
97844	Irrigon	3	No Data Available	2.3	1.4	0.0
97845	John Day	4	No Data Available	9	2.8	25.0
97846	Joseph	8	*Low*	3.8	2.3	0.0
97848	Kimberly	0	No Data Available	0	0.0	0.0
97850	La Grande	163	High	47.6	4.5	44.2
97856	Long Creek	0	No Data Available	0	0.0	0.0
97857	Lostine	1	No Data Available	1.6	1.4	0.0
97859	Meacham	0	No Data Available	0	0.0	0.0
97862	Milton Freewater	20	High	23.9	4.2	30.0

Risk Level with asterisks (i.e *Low*) indicates there are only 5-19 locations with a radon test result.

"No Data Available" indicates there were fewer than 5 locations with a test result.

Last Modified



City of La Grande

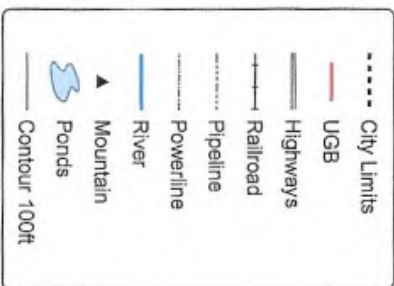
Geologic Hazard Zone

 Geologic Hazard

Note:

A Geological Hazard Waiver is required to be signed before a Building Permit for new construction is allowed within the Geological Hazard Zone.

A Site Plan, meeting the requirements of the Land Development Code, must be submitted to the Planning Division for approval.



Adopted by Ordinance Number 3210, Series 2013

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

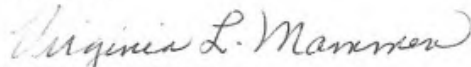
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

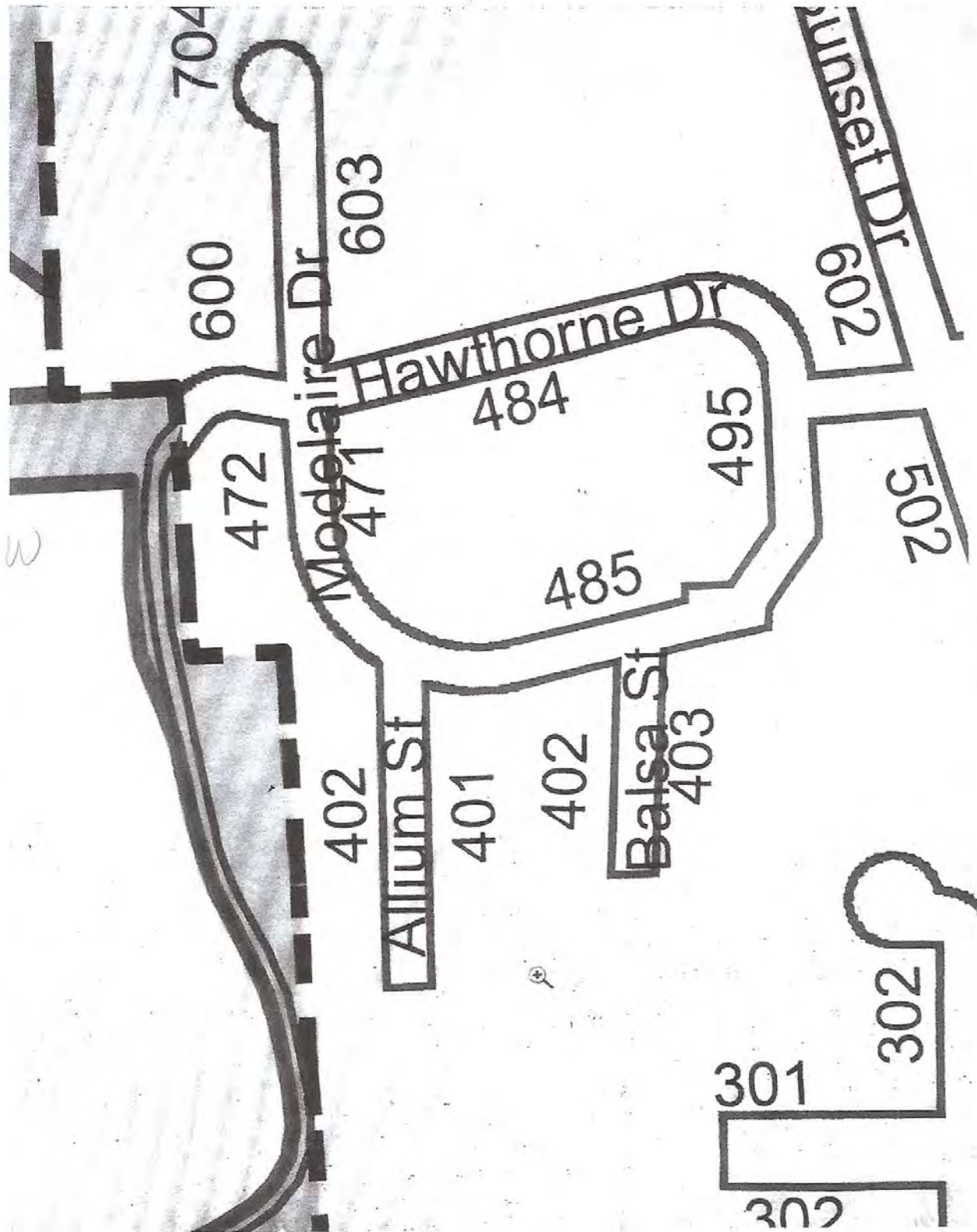


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

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V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



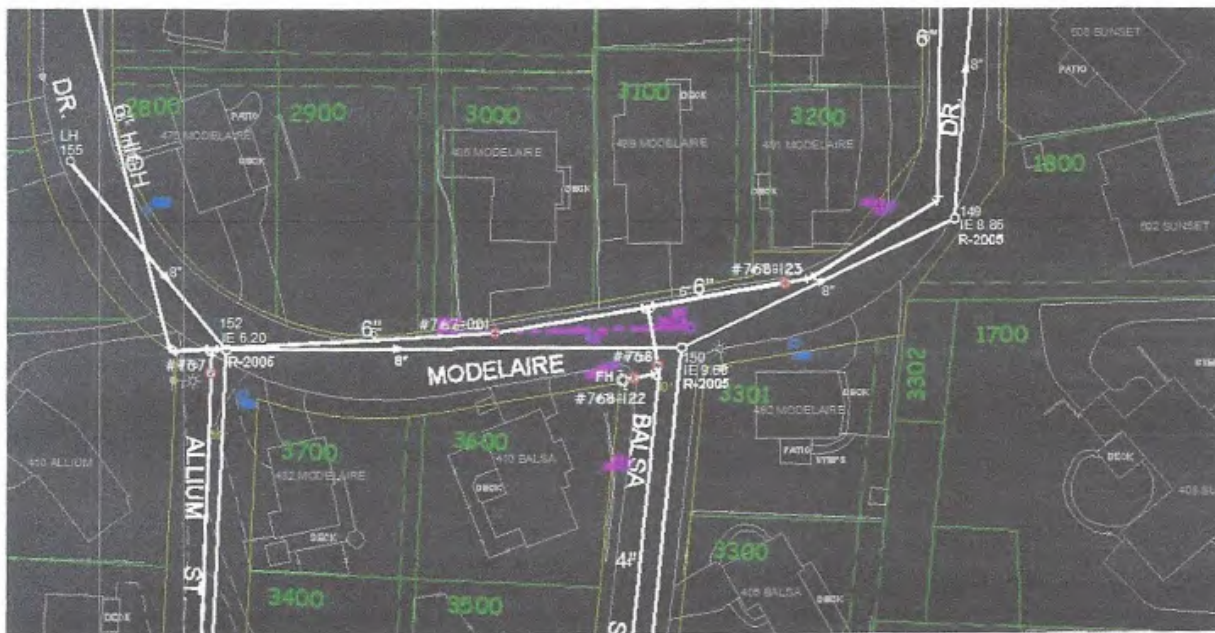
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

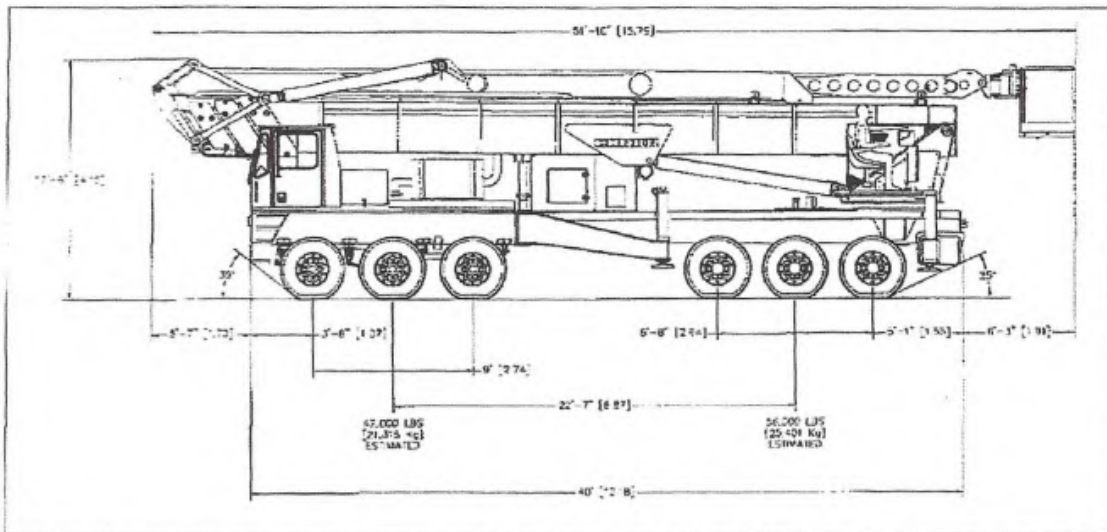


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

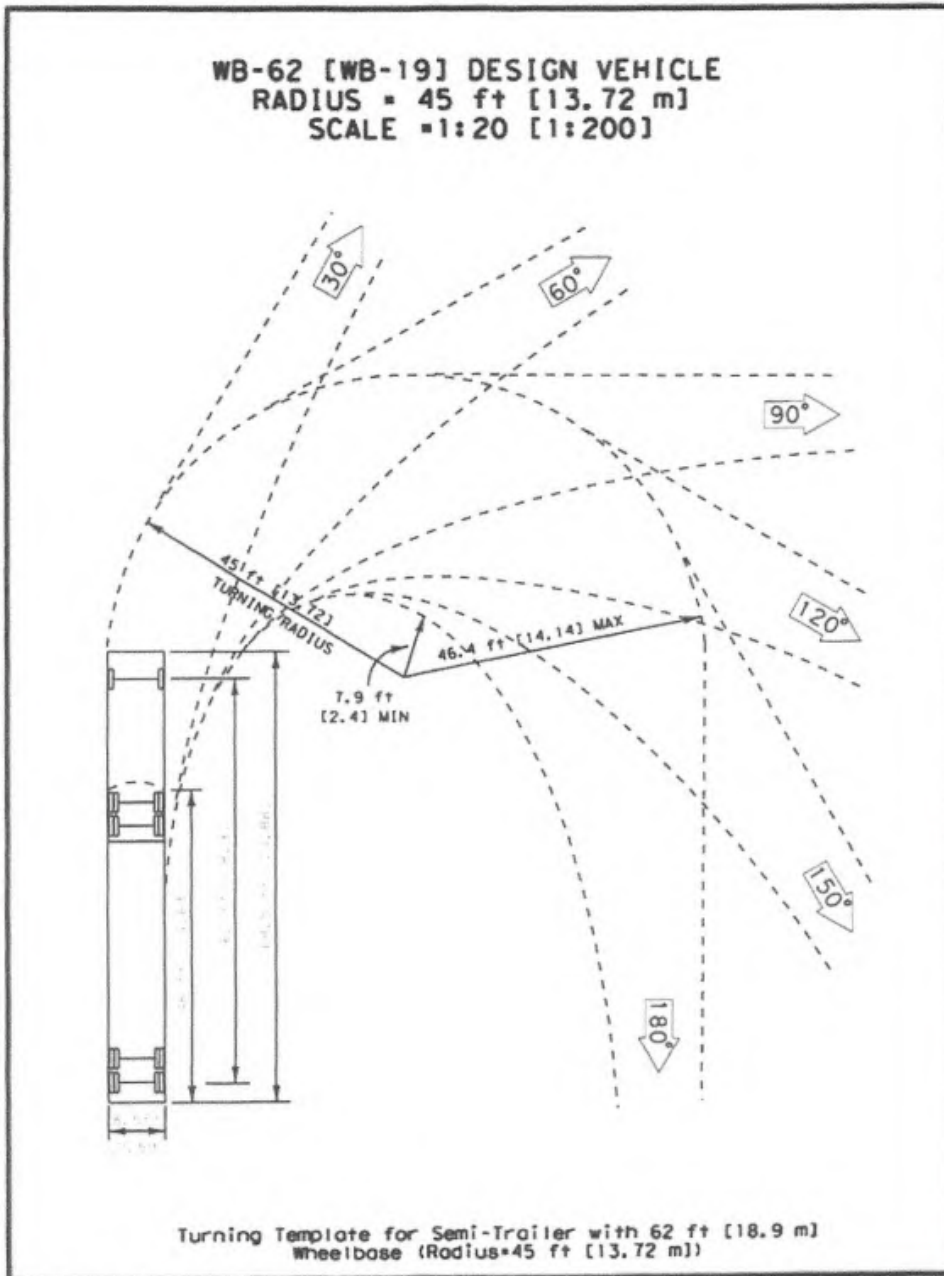
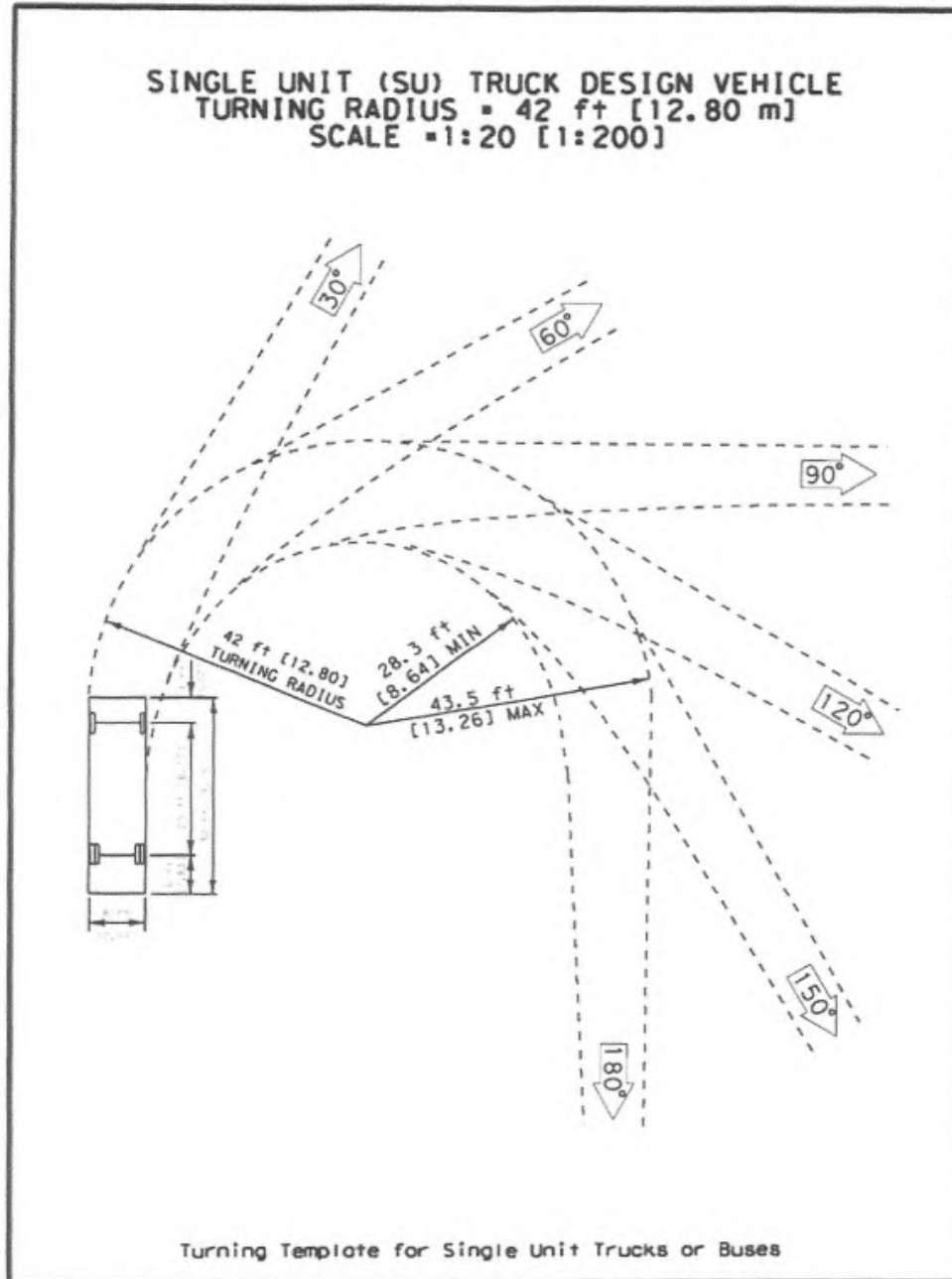


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14



CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009

Exhibit 15

AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH; AND DECLARING AN EFFECTIVE DATE

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

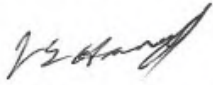
Section 17. TRUCK ROUTES

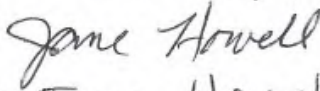
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

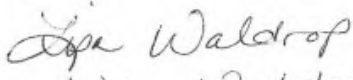
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

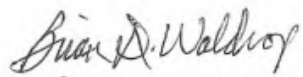
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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EMAIL mcilmail151@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

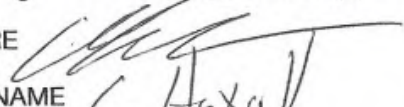

Jessie Huxell
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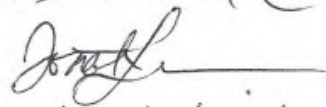

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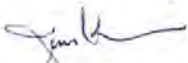
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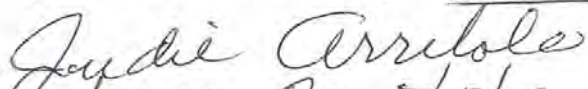
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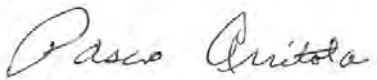
Blake Bars
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SIGNATURE 
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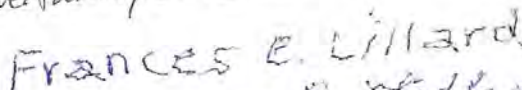
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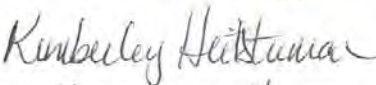
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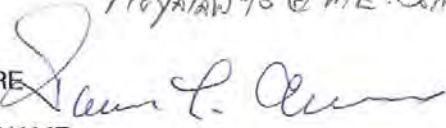
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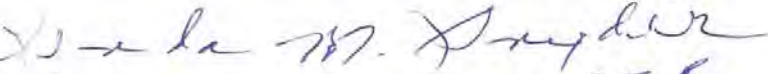
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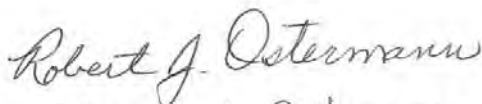
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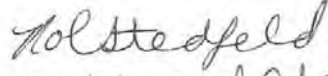
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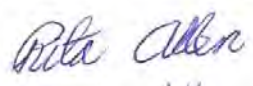
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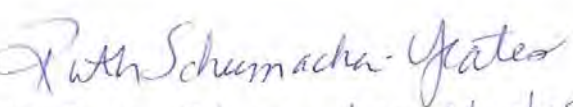
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PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
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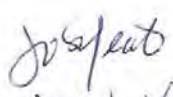
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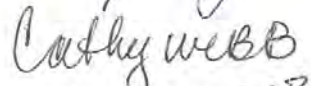
SIGNATURE 
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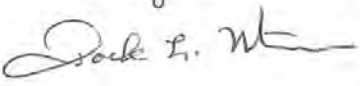
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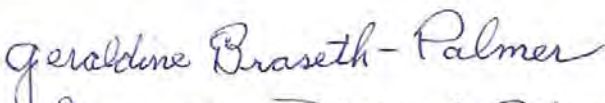

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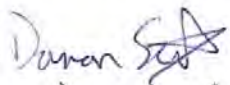
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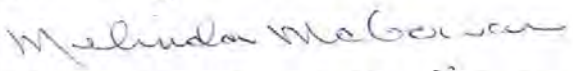
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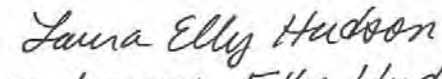
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SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
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SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. La Grande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
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SIGNATURE *Lindsay McCullough*
PRINTED NAME Lindsay McCullough
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EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
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SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
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PRINTED NAME
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EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.


In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰
These children also live in the neighborhoods to be affected by the noise
so they would be impacted coming and going to school, at home and also
while at school. To impose the constant possibility of loud noises is cruel,
disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so
close to homes, schools, and medical facilities impacting hundreds of
peoples' daily lives, the day to day agitation, wondering what is coming
next, fear and being on constant alert are not just addressed by some type
of mitigation but must be addressed by a route that is much less impactful
to peoples' safety, sanity, and health.

Sincerely,

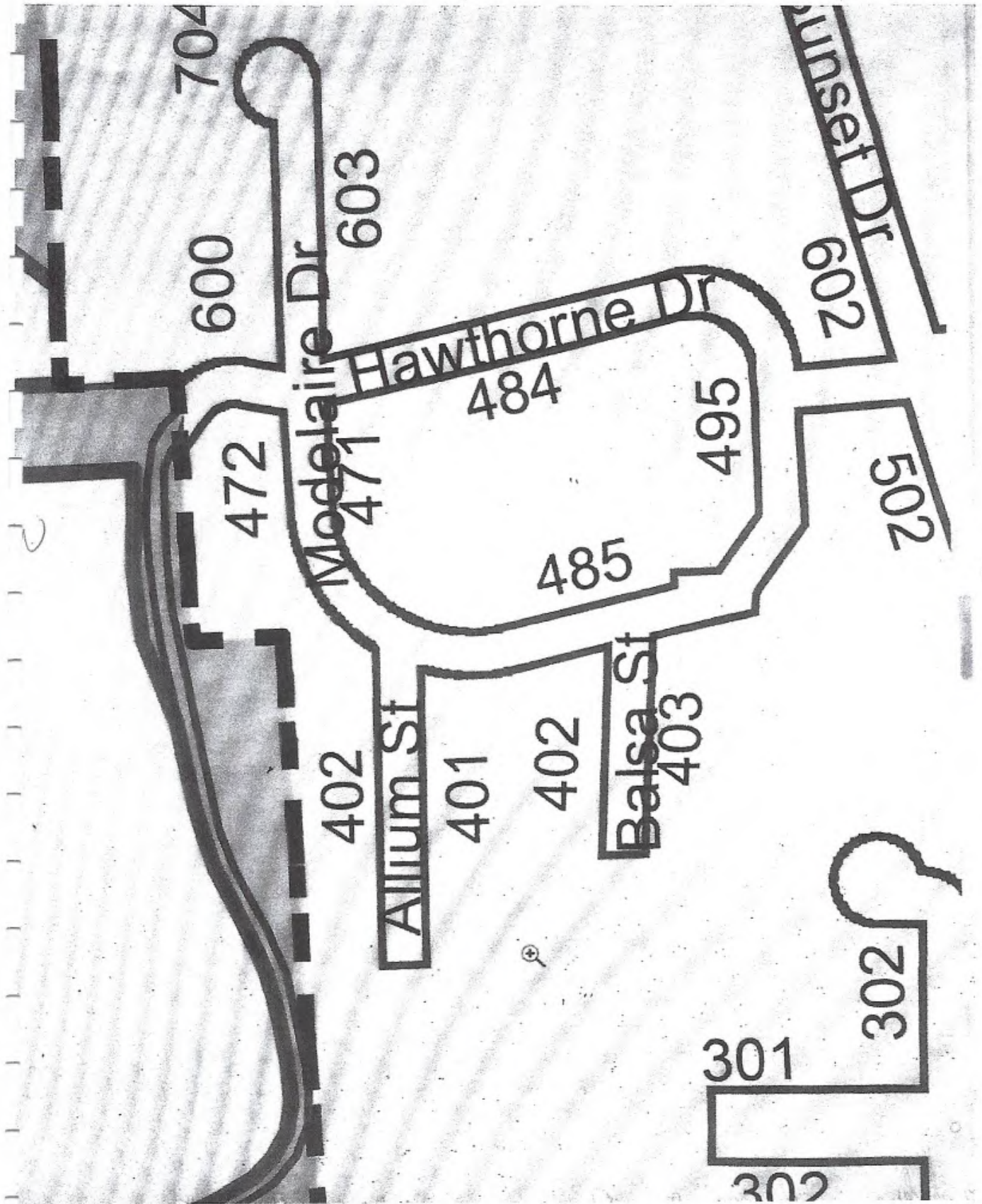


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



2

11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4a

8/5/2019

Oregon Secretary of State Administrative Rules

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

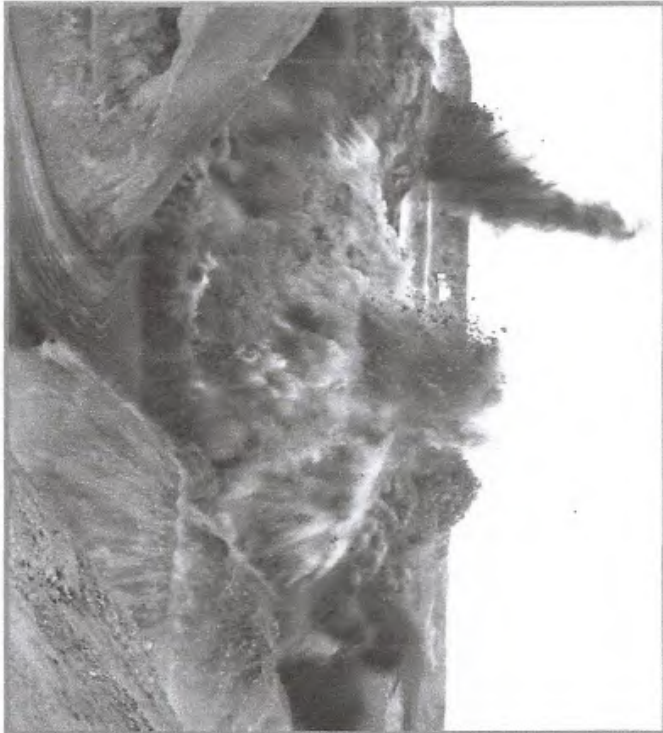
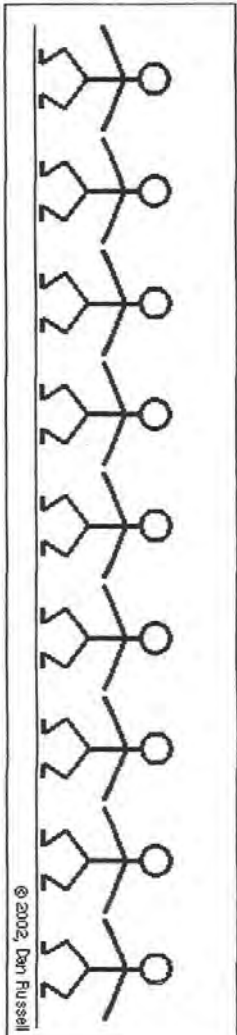


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

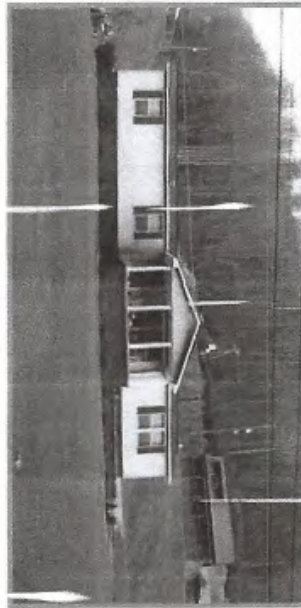
Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.



Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

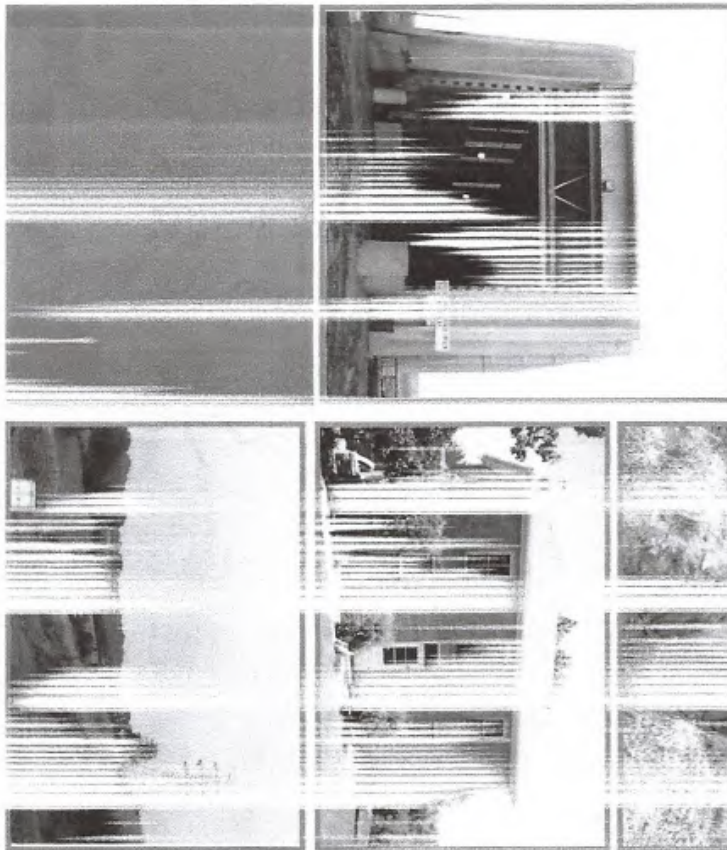
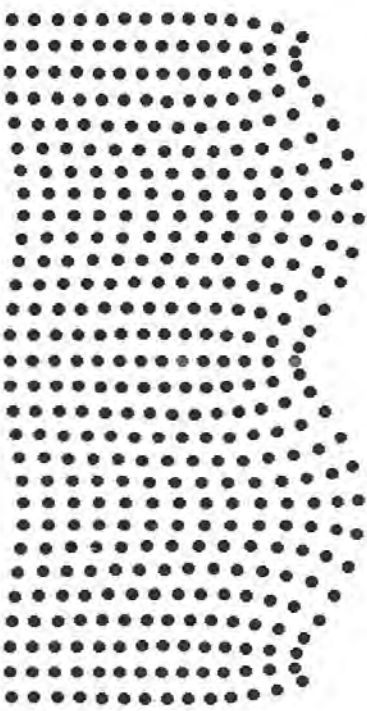


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

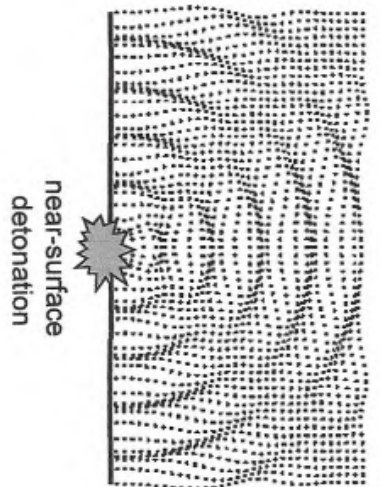
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

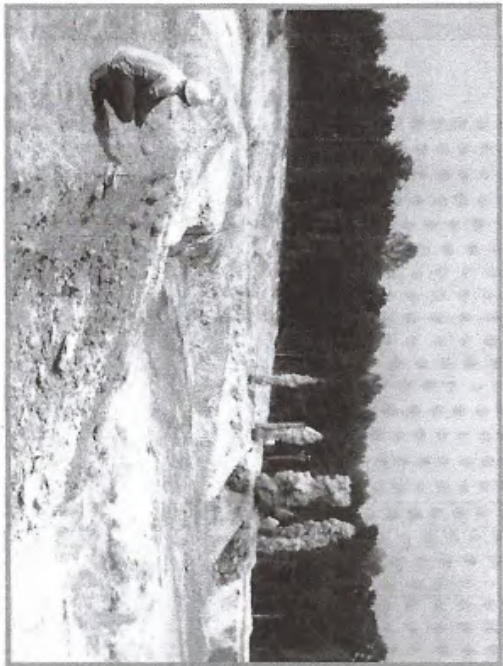
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

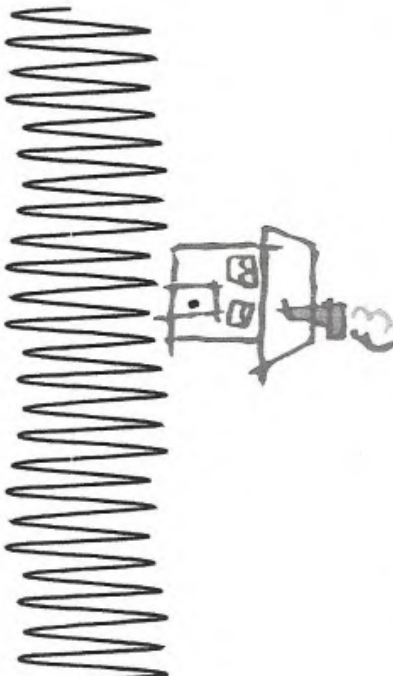
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

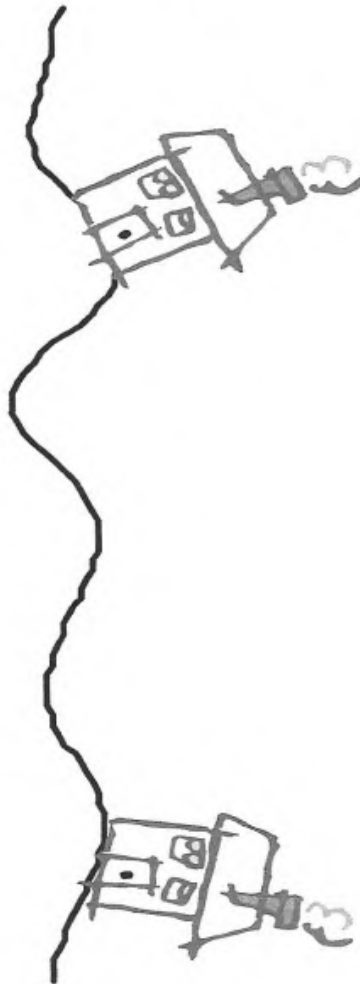


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



Harvard Health Publishing
HARVARD MEDICAL SCHOOL
Trusted advice for a healthier life

A noisy problem - Harvard Health

Exhibit 16
CART | FREE HEALTHBEAT SIGNUP | SHOP | SIGN IN

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What can we help you find?



HEART
HEALTH

MIND &
MOOD

PAIN

STAYING
HEALTHY

CANCER

DISEASES &
CONDITIONS

MEN'S
HEALTH

WOMEN'S
HEALTH

LICENSING

Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

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acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10 12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q ☰

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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Additional Resources & Tools

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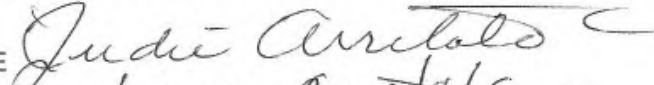


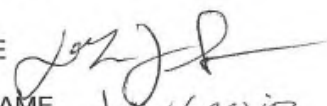
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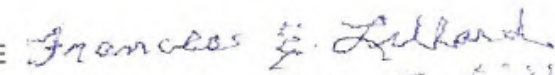
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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE 
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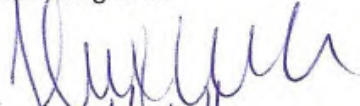
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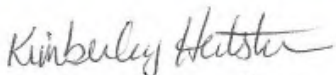
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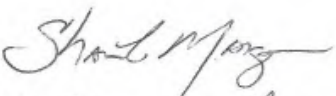
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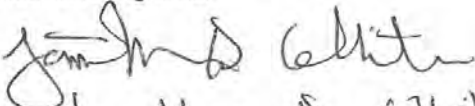
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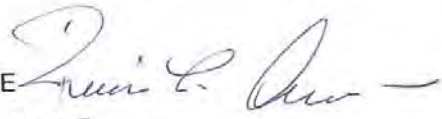
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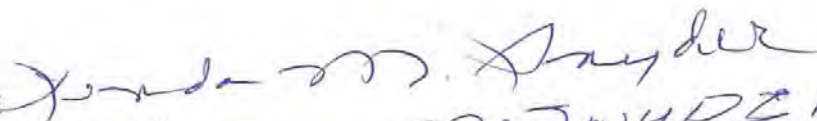
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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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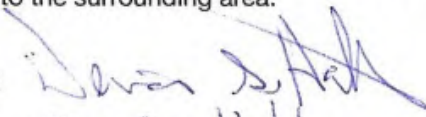
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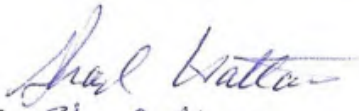
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SIGNATURE



PRINTED NAME

Shad Hattan

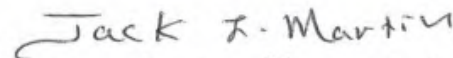
ADDRESS

507 Sunset Dr

EMAIL

hattansl88@gmail.com

SIGNATURE



PRINTED NAME

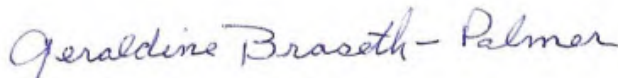
Jack L. Martin

ADDRESS

1412 Gildcrest Dr.

EMAIL

SIGNATURE



PRINTED NAME

GERALDINE BRASETH-PALMER

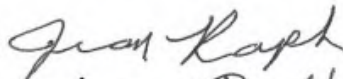
ADDRESS

1602 Gildcrest Drive - LaGrande, Or; 97850

EMAIL



SIGNATURE



PRINTED NAME

Jean RAPH

ADDRESS

1509 Madison Ave LaGrande, OR 97850

EMAIL

jraph19@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Damon Sexton*
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL sexton.damon@gmail.com

SIGNATURE *Coy Sexton*
PRINTED NAME Coy Sexton
ADDRESS 401 Balsa Street, La Grande, OR 97850
EMAIL coytris@gmail.com

SIGNATURE *Melinda McGowan*
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Lois Barry*
PRINTED NAME LOIS BARRY
ADDRESS P.O. Box 566, LA GRANDE, OR 97850
EMAIL loisbarry31@gmail.com

SIGNATURE *Cathy Webb*
PRINTED NAME CATHY WEBB
ADDRESS 1700 Cedar St. LA GRANDE, OR 97850
EMAIL thinkski@gmail.com

SIGNATURE *JoAnn Marlette*
PRINTED NAME JOANN MARLETTE
ADDRESS 2031 Court St. #8, Baker City, OR 97814
EMAIL joannmarlette@yahoo.com

SIGNATURE *Keith D. Hudson*
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL KeithDhudson@gmail.com

SIGNATURE *Laura Elly Hudson*
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

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SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, LaGrande OR 97850
EMAIL rlwd1910@gmail.com

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande OR 97850
EMAIL acavinot@ecu.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR. 97850
EMAIL joehorst@conic.com

SIGNATURE *Angela Sherer*
PRINTED NAME Angela Sherer
ADDRESS 91 W. Hawthorne Dr La Grande, OR 97850
EMAIL asherer@frontier.com

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SIGNATURE *Merle E Comfort*
PRINTED NAME MERLE E COMFORT
ADDRESS 209 SWAPLO LA GRANDE OR 97850
EMAIL merlecomfort@gmail.com

SIGNATURE *Robin L. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL rmaille@icloud.com

SIGNATURE *Carol Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Bekelen Lane La Grande OR.
EMAIL carolsummers1938@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 4th Street - LaGrande - OR 97850
EMAIL

SIGNATURE *Gerald D. Juniper*
PRINTED NAME Gerald Darwin Juniper
ADDRESS 406 4th St. LaGrande, OR. 97850
EMAIL

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SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97w Hawthorne Dr, La Grande, OR 97850
EMAIL asherer@frontier.com.

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 madelaire Dr. La Grande, OR 97850
EMAIL hnull@coni.com

SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfrewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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 DATE OF DELIVERY SPECIFIED*

 USPS TRACKING™ INCLUDED*

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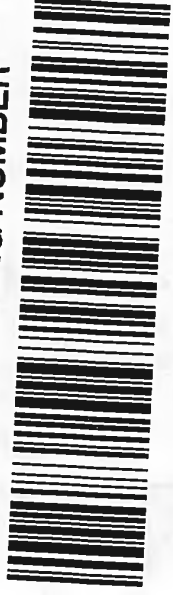
EXPECTED DELIVERY DAY: 08/17/19

SHIP TO:

550 CAPITOL ST NE
SALEM OR 97301-2567

C009

USPS TRACKING NUMBER



9505 5152 5368 9228 3991 14

FROM:

From - Virginia Mammen
405 Balsu
La Grande, OR 97850

To - Energy Facilities Siting Council
c/o Kellen Tardaewether Jr. Siting
Analyst
OREGON DEPARTMENT of Energy
550 Capitol St. N.E.
Salem, OR 97301

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

RECEIVED

AUG 19 2019

DEPARTMENT OF ENERGY

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

August 12, 2019
Energy Facilities Siting Council
C/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97850

Subject: Idaho Power Application for Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

To: Chairman Beyeler and Members of the Council

Many thoughts are running through my head as I write this letter. As I have talked with numerous neighbors in the Modelaire/Hawthorne Loop area and others, I have learned that I represent many who have these same thoughts and concerns. I have penned several letters which address specific concerns in accordance to the preferred manner. However, the idea of writing a letter to a Council such as yourselves, having the requirements before them that have to be met in composing such a letter, is totally daunting for most. Knowing that B2H might be coming has created an atmosphere of fear both of the known and unknown about it.

I am angry (and when I have a righteous anger I feel it necessary to express my thoughts and opinions) as well as those with whom I have spoken, therefore I am throwing aside the rules and regulations of the correct composure and am expressing some of these concerns which cannot be address by any rules, regulations or standings except by those of respect, concern for a fellow neighbor, just plain common sense and perhaps OAR 345-022-0110 which, unless the words are completely hollow, is supposed to stand as a protection for me and my fellow Oregonians in matters of health and safety.

Let me say that the precise route that B2H is planning through Union County close to the City of La Grande has not been sufficiently shown or impacts addressed to any of us as to exactly where or when anything will occur so we cannot fully/correctly address what our concerns and fears are, except that there are many.

Geologic Hazard Zone

One of the many big concerns for the west and south hills residents is that the area is a geologic hazard area and is subject to slides. Not knowing just where the towers will be placed and where the heavy equipment will disrupt the terrain, how the water flow patterns will be disturbed by this disruption and how much the slippage already occurring will be enhanced create great concern. Most of the homes in this area have experienced cracking foundations, cracks in sheet rock, pulling away of walls, breaks in water lines and sewer lines, water all of a sudden appearing in one's yard or basement—all because of the way weather and Mother Nature affect the creeping slide

area. Streets and driveways also suffer from the slippage and develop cracks and sink holes. These are a knowns and have been accepted because they have been slow and manageable. La Grande is rated as having one of the highest presence in the state for radon. After talking with the Oregon Department of Health Environmental Section, I learned that its flow could also be an added cause of concern with any further additional disturbance of this area. Intentionally adding a dangerous stress to this already stressed area is not only unnecessary but unpardonable.

Noise

OAR 345-02200110 speaks to before, during and after. I have previously said and will reiterate that a portion of the route of the proposed line across the west and south hills of La Grande is extremely close to many neighborhoods comprised of numerous homes, a hospital and several schools. There are people of all ages with many life/health challenges. Noise of construction, whether it be vehicles, blasting etc for twelve hours a day is, for most people, more than annoying, but for some is frightening and for some outright dangerous. Some of the people so affected would be those employees who need to sleep during the day, and those who are ill, elderly, or young children. In these neighborhoods along the route there are veterans, people with PTSD, and tinnitus and autism who are affected in many ways by a variety of noises. The grade school serving the special needs children of La Grande is within a half mile of the boundary of the project. These children who also live in the area would most certainly be disturbed by these noises created by the construction project. Because of being on the edge of town where it is quiet, this area is normally a safe/healthy environment for these people. At this point I have only addressed the construction noise. For some the after built noise (humming, buzzing, popping) of the wires would be a never ending annoyance and concern.

Fire Danger

La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire. When one lives close to an area that has natural growth, such as timber and grasses, they are aware there is a possibility of fire danger and we prepare ourselves for that possibility. The west hills experienced the Rooster Peak Fire in 1973. The area has become more populated since that time, and we all hope that nothing like this ever occurs again although the fear never really leaves. Because of the ever increasing wildfires in Oregon due to many natural and accidental causes and of the recent fires in California due to high tension wires such as in the B2H project this fear for safety from fire has reared its ugly head again. I talked with my insurance agent about fire insurance and he shared with me that many insurance companies because of the California fires are reviewing their fire coverage for urban wildland interface communities and the likelihood of greatly increased premiums or, the lesser but possible, chance of coverage restrictions/exclusions for some areas.

Property Devaluation

It is already a fact that some homeowners in areas of La Grande are having difficulty selling their homes because of the proximity to electric lines. There are more homes currently for sale on the Modelaire/Hawthorne Loop than I can ever remember. With the addition of the B2H lines bringing with it the above listed concerns it is probable that this project is going to make large areas of La Grande into less desirable or even totally undesirable places to live. There are also those who have timber holdings in this area that will be destroyed forever taking away the opportunity of leaving a legacy for future generations.

I was able to obtain a copy of a letter (see enclosed) sent to Senator Jeff Merkley by Norm Pallus, Public Works Director for the City of La Grande who has since retired. I was not able to obtain the maps to which he refers but the message that the potential location of the proposed power line could create problems for the City in a variety of ways is fully expressed.

There are many, many other long lasting reasons, besides safety or health (fear and anxiety are closely related to health), that would impact the community and others indicating that this an unacceptable route for this project across the west and south hills of Union County above La Grande. These include the pristine beauty, wild animal habitats and trails, Historic Oregon Trail sites and a beloved park and recreation site Morgan Lake. For our community the rejected BLM Environmental Preferred Route would be a much better choice with much less impact to the Oregonians who live and vacation in this tiny bit of paradise.

Considering the many ways this project could impact the daily lives of so many people, I am requesting that you deny the Idaho Power Site Certificate.

Sincerely,



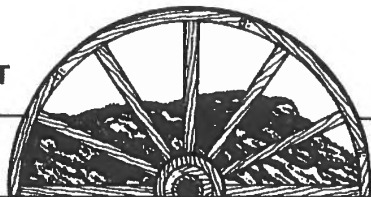
Virginia L. Mammen
405 Balsa
La Grande, OR. 97850

gmammen@eoni.com

PUBLIC WORKS DEPARTMENT

800 X Avenue
La Grande, OR 97850
Phone (541) 962-1325
FAX (541) 963-3608

CITY OF



LA GRANDE

THE HUB OF NORTHEASTERN OREGON

Honorable Senator Jeff Merkley
310 SE Second Street, Suite 105
Pendleton, Oregon 97801

Re: B2H Power Line

Dear Senator Merkley,

On behalf of the Mayor and Council of the City of La Grande, I am writing to you to address potential adverse impacts to the City of La Grande related to the Boardman to Hemmingway Power line where it passes to the south of the City in the Grande Ronde Valley. As the representative of the City of La Grande to the Union County B2H Committee, these impacts were discussed with the Committee; however, I would like to make sure that you are personally aware to assist you understanding the issues from the City's perspective. The following concerns may create a hardship for the City depending on the final location of the proposed power line:

Future Drinking Water Reservoir Site on South 12th Street – The City has addressed with the property owner and our consultants about the need for an additional drinking water storage reservoir on the south end of town on 12th Street. One of the proposed power line locations will place this new system in the immediate proximity of the site location that has been under consideration. Construction of the proposed power line could restrict or limit the City's ability of being able to consider this site for water storage to meet the future needs of the area, especially if the property falls within the B2H easement area. This area is shown in pink on the attached map.

Existing Drinking Water Reservoir Site Areas – If the new proposed power lines cross any of the existing piping in the area of the reservoirs it could adversely impact our access and maintenance of these existing drinking water pipeline sections. I have personally seen this water line rupture as a result of heavy equipment working on top of the pipeline. If this were to occur, it could jeopardize the powerline itself. This water line serves the entire city with drinking water and a power line of the nature of what is proposed may result in conflicts when we maintain and/or repair this water supply system; when Idaho Power maintains, their power line; and the potential for damage to our drinking water line when they are constructing the power line. The existing two reservoirs are shown on the attached map and reflected inside of the area shown in yellow.

The Beaver Creek Supply Drinking Water Line – La Grande has a drinking water supply line that takes water from the La Grande Reservoir located 17 miles south of La Grande and transports water to the storage reservoir just south of La Grande. Any easements placed over this water line may restrict the City's ability to repair, maintain, or replace this line when the need arises. Working within a power line easement of this size usually requires a lengthy permitting and review process which has added costs and could severely limit our ability to make timely repairs. In addition to those limitations, some construction equipment may not be able to work directly under the power lines because of the safety risks that can occur from electrical arcing of the high voltage lines. These restrictions usually increase the costs of performing these kinds of jobs. This water pipeline is shown in orange on the attached map.

Construction of a Water Treatment Plant – In the future, state and federal regulatory agencies have indicated that the Safe Drinking Water Act may require municipal ground water sources to be treated with a water treatment plant. If the City were to construct a treatment facility, the logical location would be in the vicinity of the existing drinking water storage reservoirs. With a new power line system passing within these prime areas for this facility, it could eliminate the city's ability to construct this facility within the best area or could place limitations on the type of facility to be constructed. Staff believes that it is not a matter of "if they will require a water treatment plant" but "when will they require a water treatment plant." The logical area for a treatment plant is shown in yellow on the attached map.

Anticipated Hydro Generating Capabilities – The City has an existing Water Master Plan that includes the possibility of placing in-line generators within the Beaver Creek water transmission line to generate electricity when a treatment plant is constructed. It is anticipated that there could be as many as four units placed within the water transmission line in the area from Morgan Lake to La Grande. The City believes that because of the nature of two alternating power sources crossing each other, there could be a transfer of power from one system to another. If the City should construct a power generating system with overhead transmission lines, there would be impacts that would be encountered that would restrict the city's ability to recover this power resource revenue. The area shown by the orange line on the map reflects the location the in-line turbines would be installed.

The View Shed – Residents of the City of La Grande, as well as other Grande Ronde Valley residents and visitors to the area have always had the pleasure of minimal man-made disturbances to the natural scenery. This newly proposed mega system of power lines will have a significant impact on the view shed that is already impacted by the existing power supply lines coming from both Bonneville Power and Idaho Power. Not only would this distract from the natural beauty that we have had the pleasure of enjoying in our everyday lives but also could create an adverse impact to tourism

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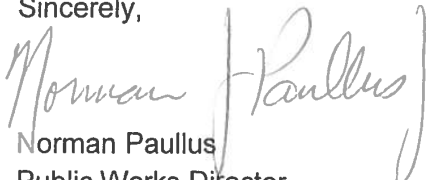
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industry in our area. As an example I would relate it to something similar to the recent construction of the wind mills in the Arlington – Biggs area. At first there was a few which weren't too bad and now the area is littered with them.

Morgan Lake Recreational Area – Morgan Lake is a popular, heavily used recreational area since the mid 1900's. Recreational users enjoy areas close to town for brief periods of outdoor enjoyment. If the power lines are to be located within close proximity of the Morgan Lake Recreational area it would detract from the enjoyment of the many people that take advantage of this unique opportunity. With diminished use, it could become an area of little use or need by the public and adversely impact our quality of life. The Morgan Lake Recreational area is shown just off of the map and reflected by a yellow post-it.

While some of the things mentioned above may seem small in nature to some, the improvements proposed by the B2H project are major and permanent in nature. The B2H power line project has a wide range of impacts that reach far greater than those that I have addressed in its' proposed course of construction and establishment throughout its course from Boardman to Hemmingway. Those that I see in the Union County vicinity are major and need to be scrutinized in greater detail. I hope this helps and if you have any questions concerning this project and its impacts to the City please feel free to call me.

Sincerely,


Norman Paullus
Public Works Director



**Oregon Radon Awareness Program
 Indoor Radon Test Results Summary**

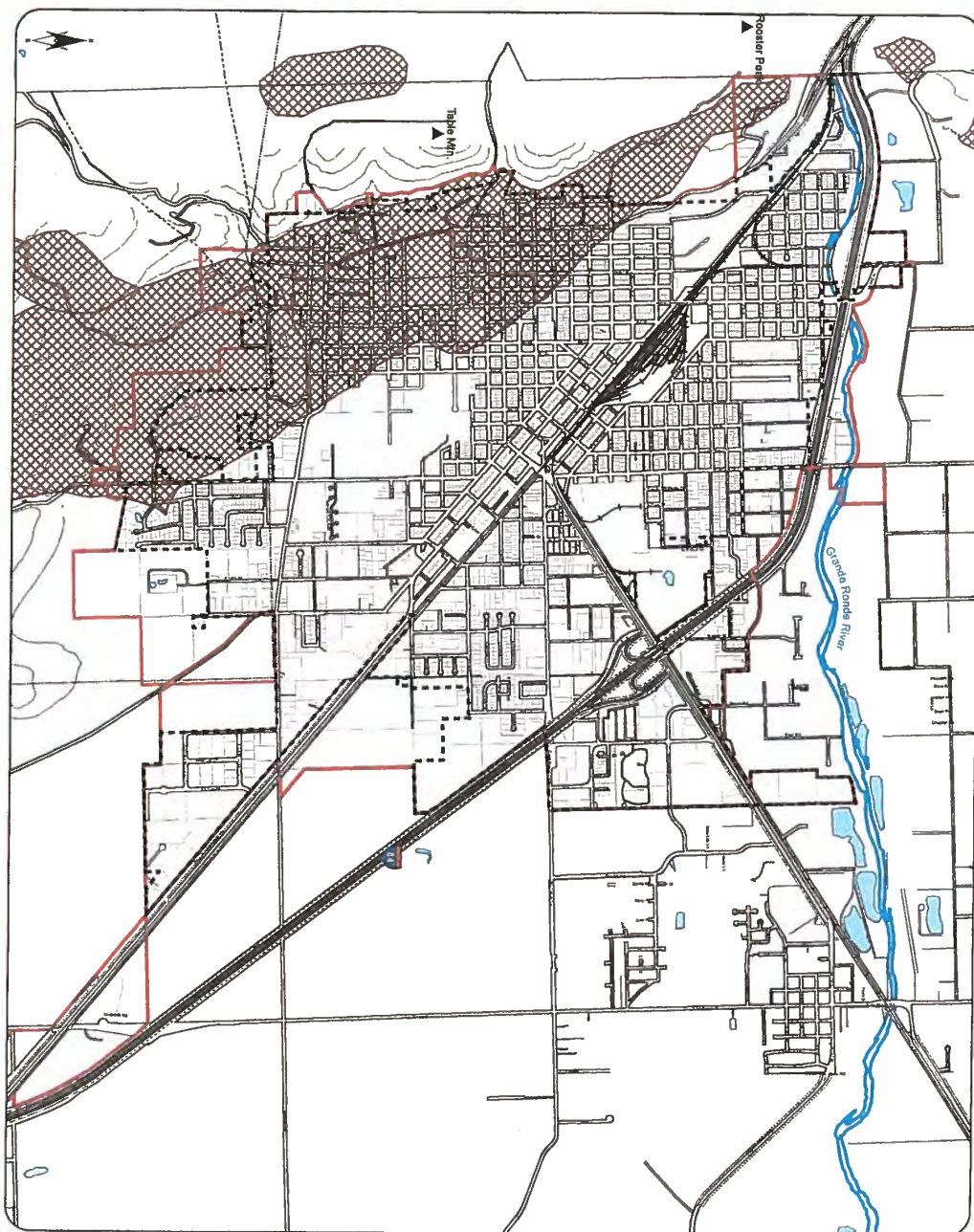
ZIP Code	City	Total Number of Locations Tested	Risk of Elevated Radon	Maximum Result (pCi/L)	Average Result (pCi/L)	Percent of Locations with Result \geq 4 pCi/L
97758	Riley	0	No Data Available	0	0.0	0.0
97759	Sisters	9	*Low*	7	1.9	22.2
97760	Terrebonne	4	No Data Available	1.8	1.0	0.0
97761	Warm Springs	0	No Data Available	0	0.0	0.0
97801	Pendleton	39	Moderate	9.2	1.9	10.3
97810	Adams	2	No Data Available	1.8	1.4	0.0
97812	Arlington	3	No Data Available	1.4	1.0	0.0
97813	Athens	0	No Data Available	0	0.0	0.0
97814	Baker City	64	Moderate	20.5	4.0	37.5
97817	Bates	0	No Data Available	0	0.0	0.0
97818	Boardman	0	No Data Available	0	0.0	0.0
97820	Canyon City	4	No Data Available	8.3	3.2	25.0
97823	Condon	0	No Data Available	0	0.0	0.0
97824	Cove	8	*High*	9.7	4.1	37.5
97825	Dayville	0	No Data Available	0	0.0	0.0
97826	Echo	1	No Data Available	7.3	7.1	100.0
97827	Elgin	12	*High*	22.6	4.6	41.7
97828	Enterprise	12	*Low*	3.4	1.8	0.0
97830	Fossil	0	No Data Available	0	0.0	0.0
97833	Haines	3	No Data Available	5.8	2.8	33.3
97834	Halfway	1	No Data Available	6.8	4.3	100.0
97835	Helix	2	No Data Available	2	1.7	0.0
97836	Heppner	2	No Data Available	2	1.9	0.0
97837	Hereford	1	No Data Available	1.5	1.5	0.0
97838	Hermiston	9	*Low*	7.5	1.9	11.1
97839	Lexington	0	No Data Available	0	0.0	0.0
97840	Oxbow	0	No Data Available	0	0.0	0.0
97841	Imbler	3	No Data Available	2.7	2.2	0.0
97842	Imnaha	0	No Data Available	0	0.0	0.0
97843	Ione	1	No Data Available	6.3	5.0	100.0
97844	Irrigon	3	No Data Available	2.3	1.4	0.0
97845	John Day	4	No Data Available	9	2.8	25.0
97846	Joseph	8	*Low*	3.8	2.3	0.0
97848	Kimberly	0	No Data Available	0	0.0	0.0
97850	La Grande	163	High	47.6	4.5	44.2
97856	Long Creek	0	No Data Available	0	0.0	0.0
97857	Lostine	1	No Data Available	1.6	1.4	0.0
97859	Meacham	0	No Data Available	0	0.0	0.0
97862	Milton Freewater	20	High	23.9	4.2	30.0

Risk Level with asterisks (i.e *Low*) indicates there are only 5-19 locations with a radon test result.

"No Data Available" indicates there were fewer than 5 locations with a test result.

pCi/L = picocuries per liter of air.

Last Modified
 1/9/2019



City of La Grande

Geologic Hazard Zone

 Geologic Hazard

Note:

A Geologic Hazard Waiver is required to be signed before a Building Permit for new construction is allowed within the Geologic Hazard Zone.

A Site Plan, meeting the requirements of the Land Development Code, must be submitted to the Planning Division for approval.

- City Limits
- UGB
- ==== Highways
- ==== Railroad
- Pipeline
- Powerline
- River
- ▲ Mountain
- ▭ Ponds
- Contour 100ft



Adopted by Ordinance Number 3210, Series 2013

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: Virginia L. Mammen

Address: 405 Balsa
La Grande, OR. 97850

Letter 1
Loop
8-15-19

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

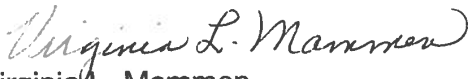
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,


Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

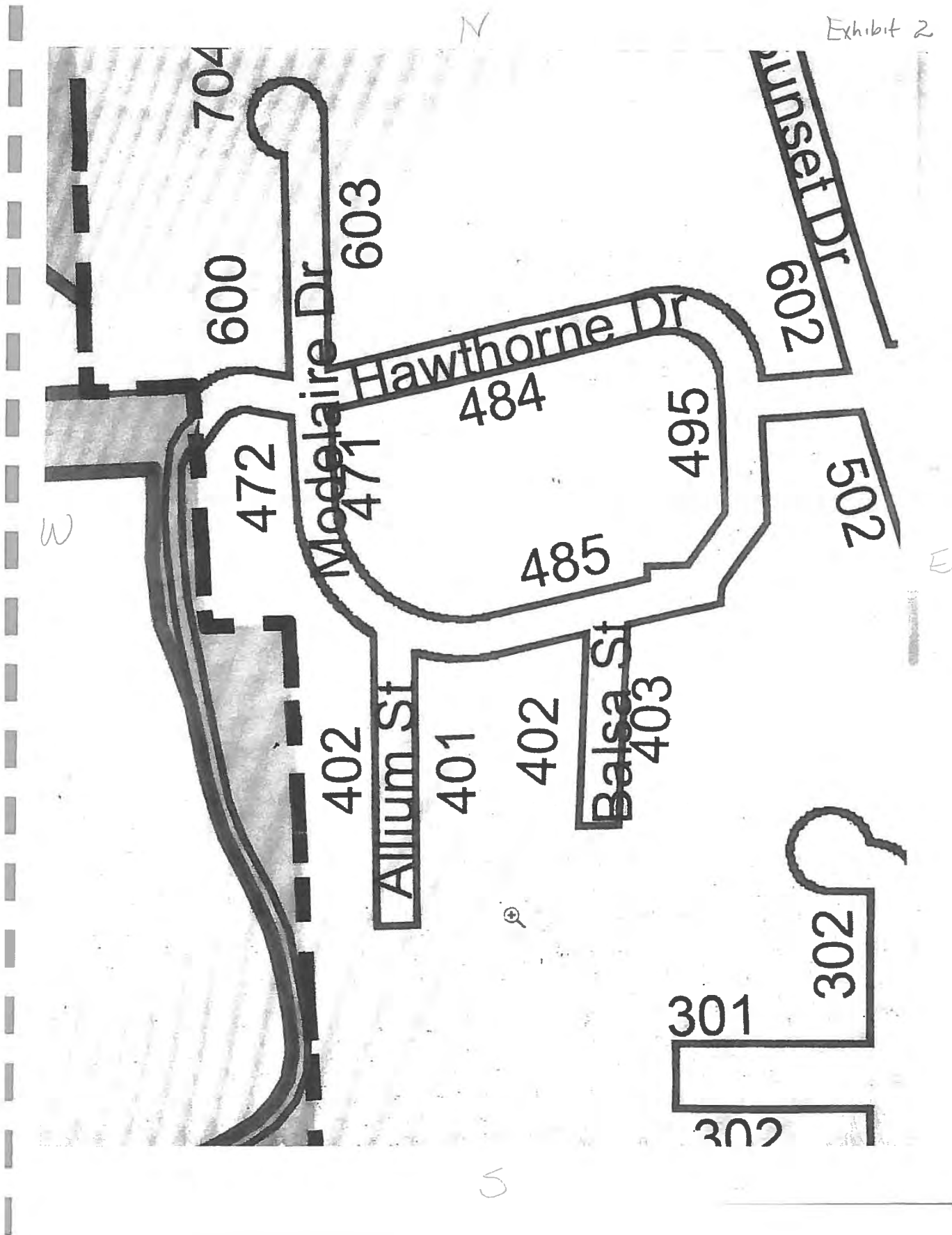


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H APASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services Include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	<p>proposed helipad is a necessary supporting facility.</p> <p>The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, C Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some</p> <p>To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K:</p> <p><i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i></p> <p><i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i></p> <p><i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i></p> <p><i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i></p> <p><i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i></p>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



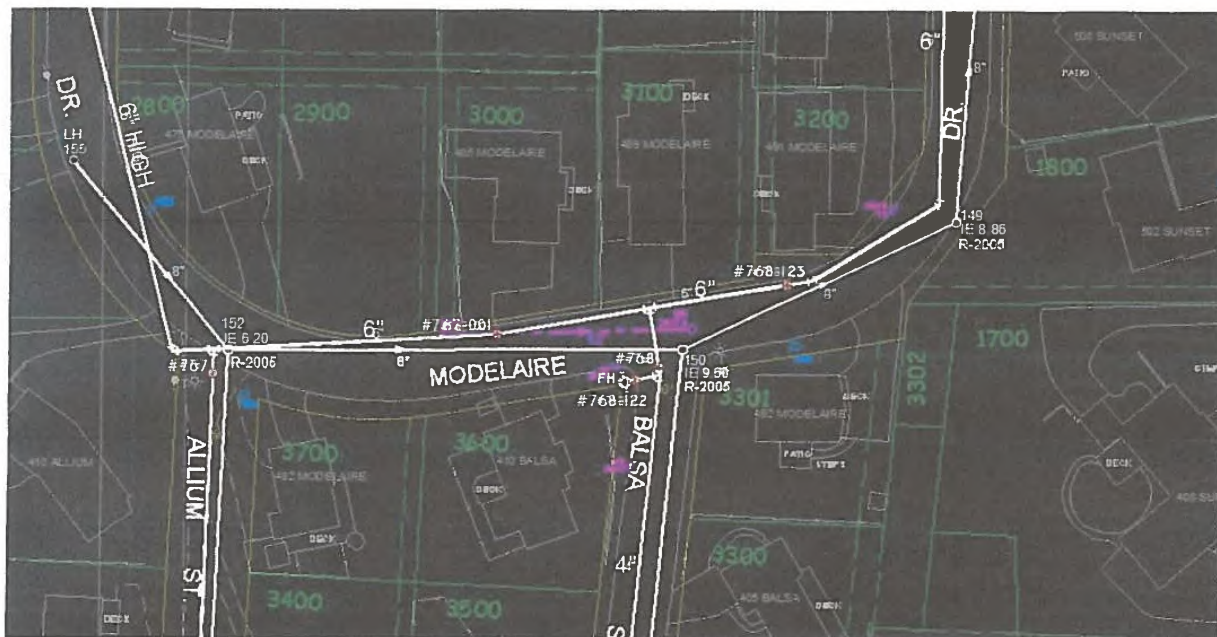
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

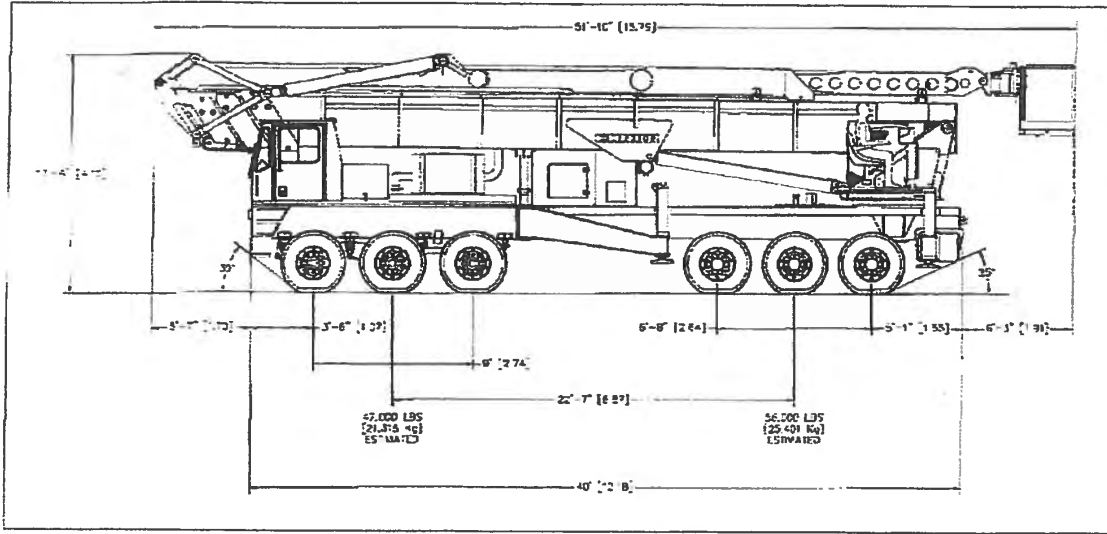


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck trips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
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ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Transportation and Traffic Plan

Boardman to Hemingway Transmission Line Project

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

Exhibit 13

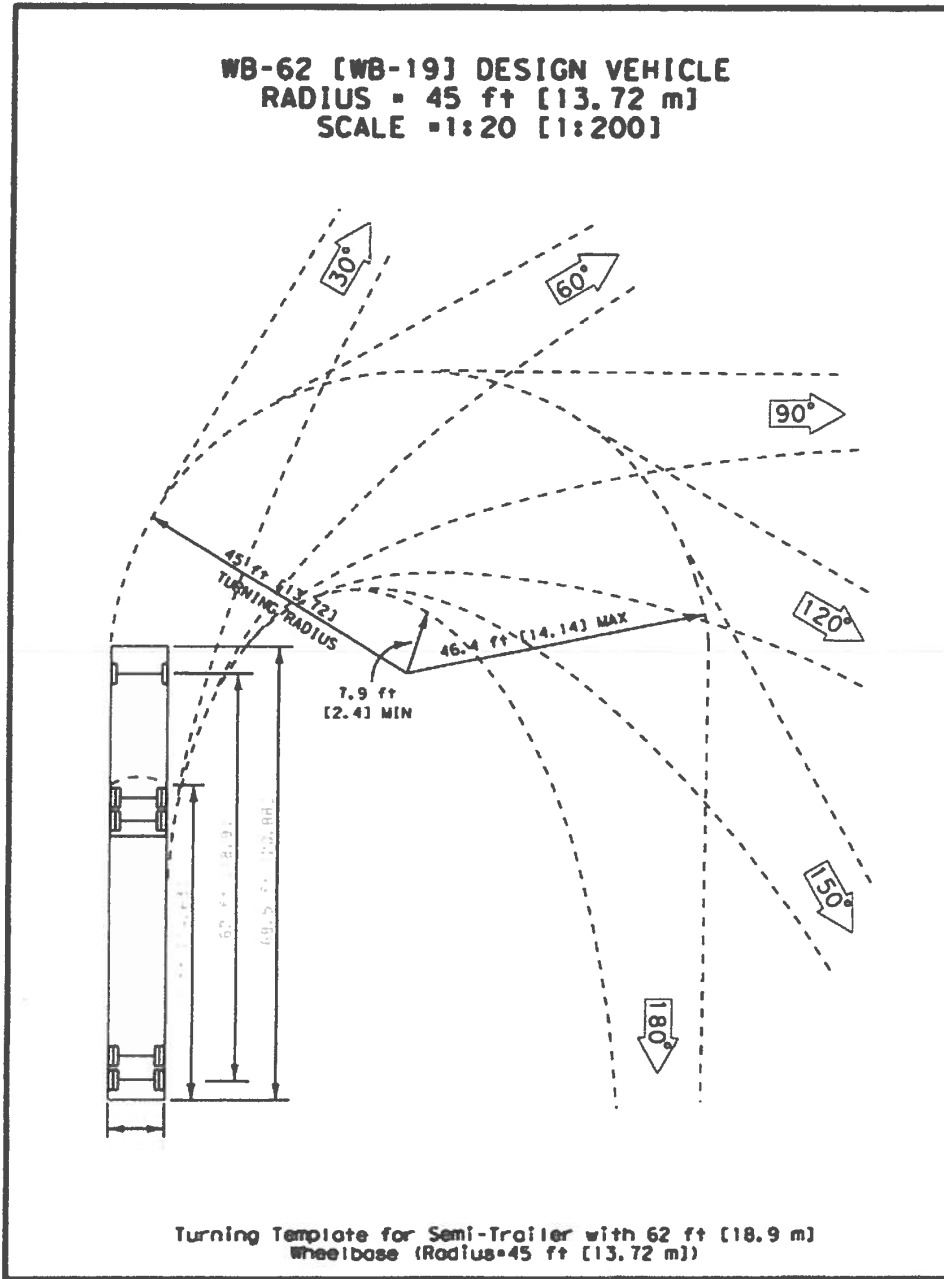


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

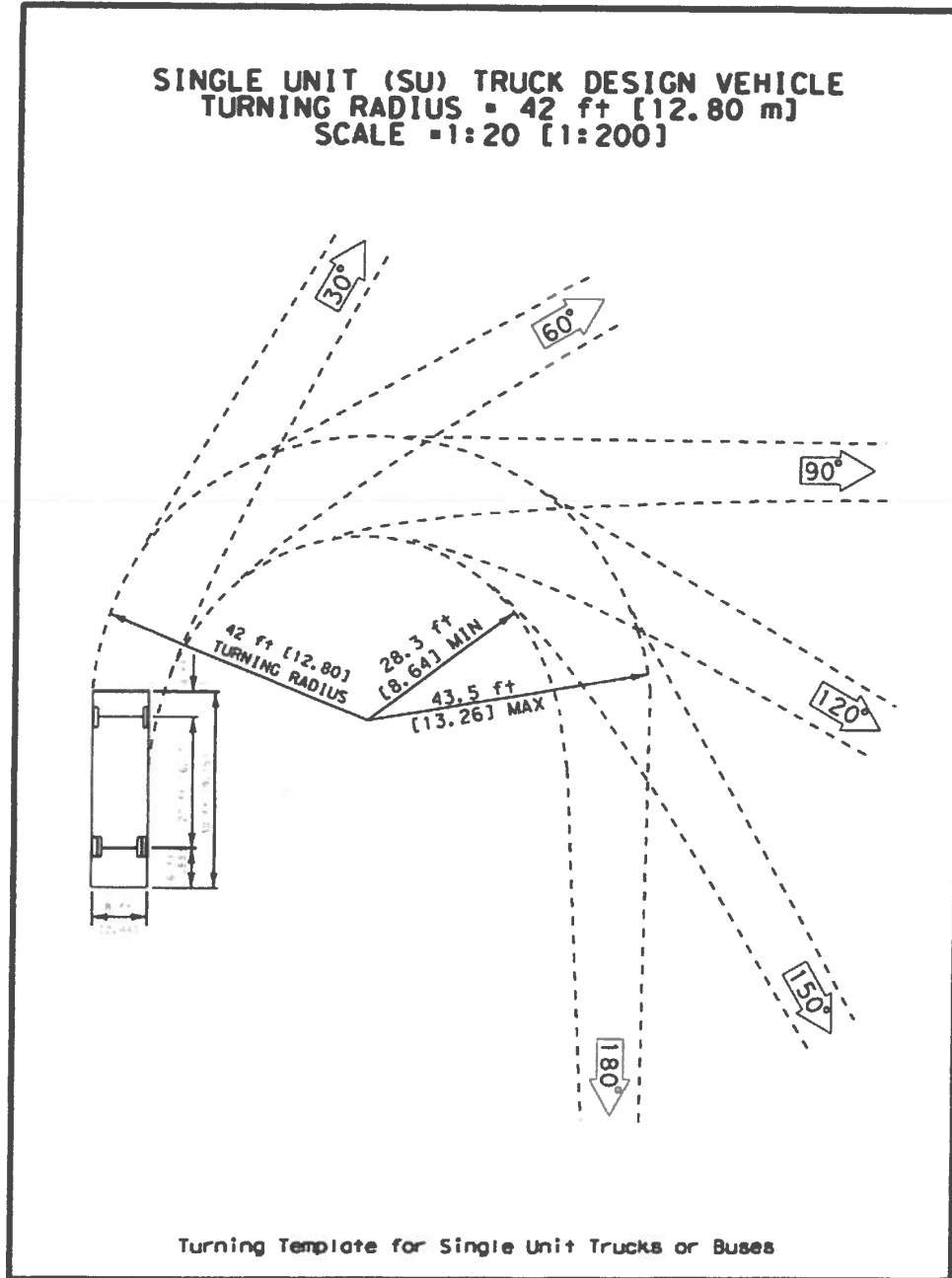


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. **Alley**

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. **Bicycle**

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. **Bicycle Lane**

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. **Bicycle Path**

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. **Block**

The part of one side of a street lying between the two (2) nearest cross streets.

f. **Central Business District**

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.


Section 17. TRUCK ROUTES


- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.


Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES


- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.


I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

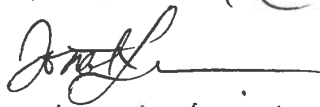

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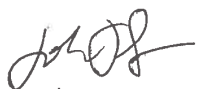
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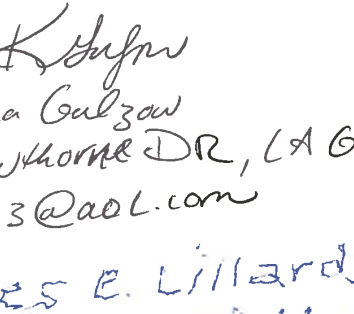
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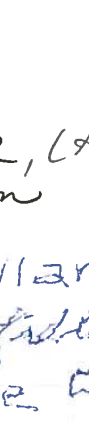
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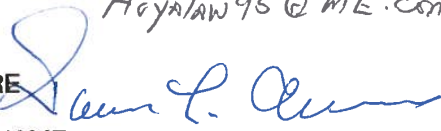
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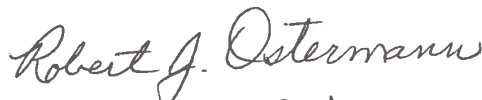
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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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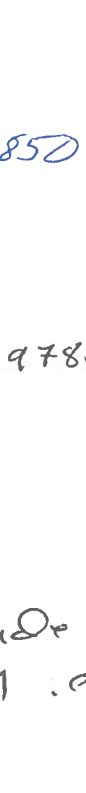

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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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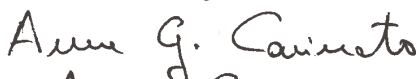
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Gerald D. Juniper*
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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ADDRESS
EMAIL

letter 2
Noise
8-15-19

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

that time the immediate neighborhood has grown to 35 homes with residents who cover the whole range of ages—small children to adults over 80 years of age. In addition there is La Grande's only hospital and a medical clinic right next to us as a neighbor and a grade school two blocks away which serves the education of special needs children of the town as well as other children in the first five grades.

According to OAR 345-022-0110, Public Services (pg. 5, April 2017)"The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." 3

I am aware of OAR 340-0035-0035(5)(g) and (h) 4 regarding construction-related noise impacts and although your application has tried to be reassuring, after reading the OSMRE article Controlling the Adverse Effects of Blasting and learning of vibrations and airblast, 5 I have some serious concerns that do not seem to be addressed by your comments in 3.3.1.1. For example suppose there is a patient in the hospital receiving surgery for a cataract and the blasting occurs causing just a fraction of a second slip of the surgeon's hand or an involuntary movement of the patient. Also both Harvard Medical School 6 and the University of Vermont Medical Center 7 speak to the detriments of noise to healing, causing increased agitation, increased heart rate, inability to sleep etc. Both the blasting and the construction traffic noise would contribute to an unhealthy and possibly extremely detrimental environment. 8

The general neighborhood as mentioned above and the other homes across the route are comprised of all ages. There are those who require sleeping during the day such as those who work at night, those who are ill, elderly, or small children who need to nap. There are also individuals with PTSD 9 who have chosen to live along your chosen route because they required quiet surroundings. The route chosen to place the B2H Transmission Project above La Grande impacts these people as well as those in the hospital, especially when it comes to noise. Constant agitation is a health issue.

Another important place where noise, safety and health collide is the proximity of the grade school mentioned above that houses the special needs children of our town as well as children in the other five grades. Many of these special needs children have autism or other noise sensitivity

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,



Virginia L. Mammen
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La Grande, Oregon 97850

gmammen@eoni.com

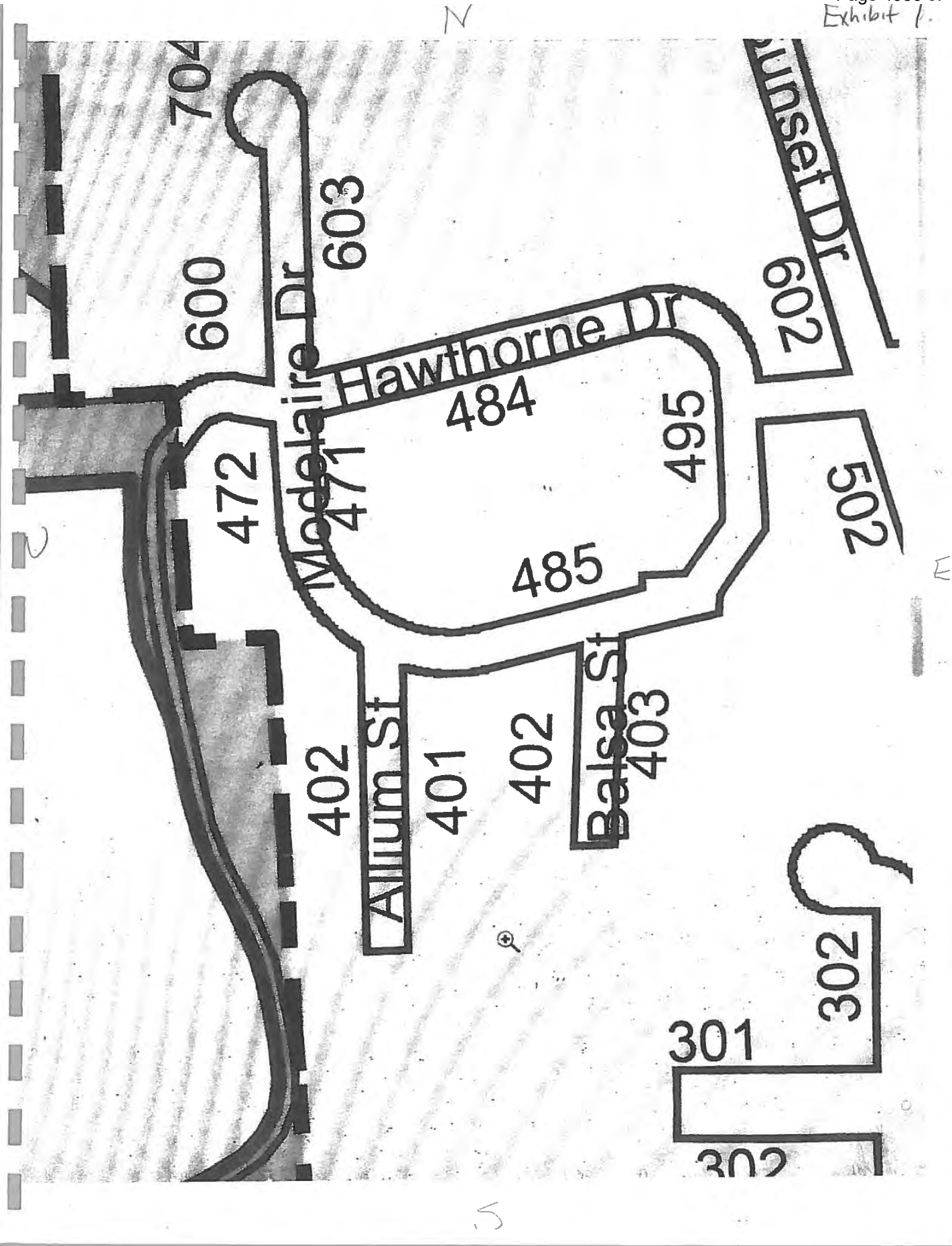


Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including *blasting and rock breaking*, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 ***Blasting and Rock Breaking***

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 ***Implosive Devices***

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4a

8/5/2019

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Department of Environmental Quality

Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

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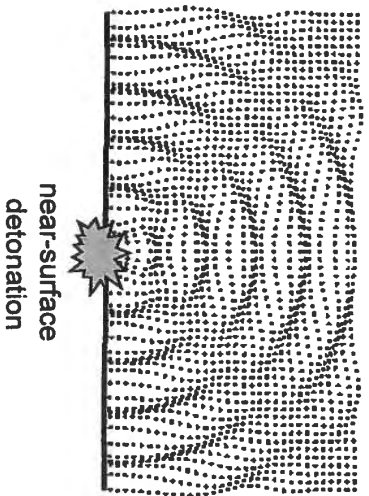
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Airblast

2
5
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Exhibit
Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

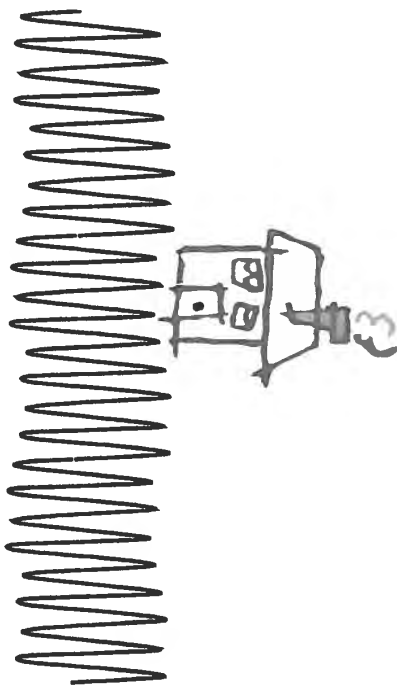
Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

Exhibit 5 F

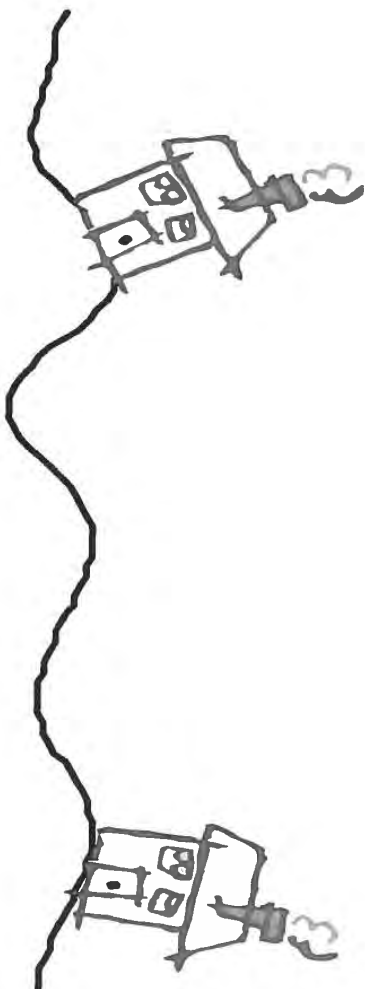


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



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A noisy problem - Harvard Health

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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation
(<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center
(<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

Exhibit 76

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

Exhibit 8a

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 9

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit a
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2011

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10 a



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PMCID: PMC3757288

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

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In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



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Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011
For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Shares

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)





SCIENCE
NEWS


EXPERT
OPINION


[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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FROM:

From - Virginia Mammen
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To - Energy Facilities Siting Council
c/o Kellen Tardaewether Jr. Siting
Analyst
OREGON DEPARTMENT of Energy
550 Capitol St. N.E.
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August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

RECEIVED

AUG 19 2019

DEPARTMENT OF ENERGY

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

August 12, 2019
Energy Facilities Siting Council
C/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97850

Subject: Idaho Power Application for Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

To: Chairman Beyeler and Members of the Council

Many thoughts are running through my head as I write this letter. As I have talked with numerous neighbors in the Modelaire/Hawthorne Loop area and others, I have learned that I represent many who have these same thoughts and concerns. I have penned several letters which address specific concerns in accordance to the preferred manner. However, the idea of writing a letter to a Council such as yourselves, having the requirements before them that have to be met in composing such a letter, is totally daunting for most. Knowing that B2H might be coming has created an atmosphere of fear both of the known and unknown about it.

I am angry (and when I have a righteous anger I feel it necessary to express my thoughts and opinions) as well as those with whom I have spoken, therefore I am throwing aside the rules and regulations of the correct composure and am expressing some of these concerns which cannot be address by any rules, regulations or standings except by those of respect, concern for a fellow neighbor, just plain common sense and perhaps OAR 345-022-0110 which, unless the words are completely hollow, is supposed to stand as a protection for me and my fellow Oregonians in matters of health and safety.

Let me say that the precise route that B2H is planning through Union County close to the City of La Grande has not been sufficiently shown or impacts addressed to any of us as to exactly where or when anything will occur so we cannot fully/correctly address what our concerns and fears are, except that there are many.

Geologic Hazard Zone

One of the many big concerns for the west and south hills residents is that the area is a geologic hazard area and is subject to slides. Not knowing just where the towers will be placed and where the heavy equipment will disrupt the terrain, how the water flow patterns will be disturbed by this disruption and how much the slippage already occurring will be enhanced create great concern. Most of the homes in this area have experienced cracking foundations, cracks in sheet rock, pulling away of walls, breaks in water lines and sewer lines, water all of a sudden appearing in one's yard or basement—all because of the way weather and Mother Nature affect the creeping slide

area. Streets and driveways also suffer from the slippage and develop cracks and sink holes. These are a knowns and have been accepted because they have been slow and manageable. La Grande is rated as having one of the highest presence in the state for radon. After talking with the Oregon Department of Health Environmental Section, I learned that its flow could also be an added cause of concern with any further additional disturbance of this area. Intentionally adding a dangerous stress to this already stressed area is not only unnecessary but unpardonable.

Noise

OAR 345-02200110 speaks to before, during and after. I have previously said and will reiterate that a portion of the route of the proposed line across the west and south hills of La Grande is extremely close to many neighborhoods comprised of numerous homes, a hospital and several schools. There are people of all ages with many life/health challenges. Noise of construction, whether it be vehicles, blasting etc for twelve hours a day is, for most people, more than annoying, but for some is frightening and for some outright dangerous. Some of the people so affected would be those employees who need to sleep during the day, and those who are ill, elderly, or young children. In these neighborhoods along the route there are veterans, people with PTSD, and tinnitus and autism who are affected in many ways by a variety of noises. The grade school serving the special needs children of La Grande is within a half mile of the boundary of the project. These children who also live in the area would most certainly be disturbed by these noises created by the construction project. Because of being on the edge of town where it is quiet, this area is normally a safe/healthy environment for these people. At this point I have only addressed the construction noise. For some the after built noise (humming, buzzing, popping) of the wires would be a never ending annoyance and concern.

Fire Danger

La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire. When one lives close to an area that has natural growth, such as timber and grasses, they are aware there is a possibility of fire danger and we prepare ourselves for that possibility. The west hills experienced the Rooster Peak Fire in 1973. The area has become more populated since that time, and we all hope that nothing like this ever occurs again although the fear never really leaves. Because of the ever increasing wildfires in Oregon due to many natural and accidental causes and of the recent fires in California due to high tension wires such as in the B2H project this fear for safety from fire has reared its ugly head again. I talked with my insurance agent about fire insurance and he shared with me that many insurance companies because of the California fires are reviewing their fire coverage for urban wildland interface communities and the likelihood of greatly increased premiums or, the lesser but possible, chance of coverage restrictions/exclusions for some areas.

Property Devaluation

It is already a fact that some homeowners in areas of La Grande are having difficulty selling their homes because of the proximity to electric lines. There are more homes currently for sale on the Modelaire/Hawthorne Loop than I can ever remember. With the addition of the B2H lines bringing with it the above listed concerns it is probable that this project is going to make large areas of La Grande into less desirable or even totally undesirable places to live. There are also those who have timber holdings in this area that will be destroyed forever taking away the opportunity of leaving a legacy for future generations.

I was able to obtain a copy of a letter (see enclosed) sent to Senator Jeff Merkley by Norm Pallus, Public Works Director for the City of La Grande who has since retired. I was not able to obtain the maps to which he refers but the message that the potential location of the proposed power line could create problems for the City in a variety of ways is fully expressed.

There are many, many other long lasting reasons, besides safety or health (fear and anxiety are closely related to health), that would impact the community and others indicating that this an unacceptable route for this project across the west and south hills of Union County above La Grande. These include the pristine beauty, wild animal habitats and trails, Historic Oregon Trail sites and a beloved park and recreation site Morgan Lake. For our community the rejected BLM Environmental Preferred Route would be a much better choice with much less impact to the Oregonians who live and vacation in this tiny bit of paradise.

Considering the many ways this project could impact the daily lives of so many people, I am requesting that you deny the Idaho Power Site Certificate.

Sincerely,



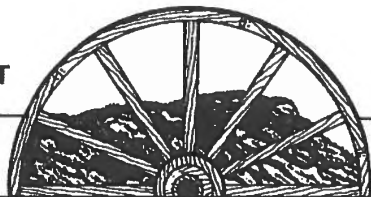
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CITY OF



LA GRANDE

THE HUB OF NORTHEASTERN OREGON

Honorable Senator Jeff Merkley
310 SE Second Street, Suite 105
Pendleton, Oregon 97801

Re: B2H Power Line

Dear Senator Merkley,

On behalf of the Mayor and Council of the City of La Grande, I am writing to you to address potential adverse impacts to the City of La Grande related to the Boardman to Hemmingway Power line where it passes to the south of the City in the Grande Ronde Valley. As the representative of the City of La Grande to the Union County B2H Committee, these impacts were discussed with the Committee; however, I would like to make sure that you are personally aware to assist you understanding the issues from the City's perspective. The following concerns may create a hardship for the City depending on the final location of the proposed power line:

Future Drinking Water Reservoir Site on South 12th Street – The City has addressed with the property owner and our consultants about the need for an additional drinking water storage reservoir on the south end of town on 12th Street. One of the proposed power line locations will place this new system in the immediate proximity of the site location that has been under consideration. Construction of the proposed power line could restrict or limit the City's ability of being able to consider this site for water storage to meet the future needs of the area, especially if the property falls within the B2H easement area. This area is shown in pink on the attached map.

Existing Drinking Water Reservoir Site Areas – If the new proposed power lines cross any of the existing piping in the area of the reservoirs it could adversely impact our access and maintenance of these existing drinking water pipeline sections. I have personally seen this water line rupture as a result of heavy equipment working on top of the pipeline. If this were to occur, it could jeopardize the powerline itself. This water line serves the entire city with drinking water and a power line of the nature of what is proposed may result in conflicts when we maintain and/or repair this water supply system; when Idaho Power maintains, their power line; and the potential for damage to our drinking water line when they are constructing the power line. The existing two reservoirs are shown on the attached map and reflected inside of the area shown in yellow.

The Beaver Creek Supply Drinking Water Line – La Grande has a drinking water supply line that takes water from the La Grande Reservoir located 17 miles south of La Grande and transports water to the storage reservoir just south of La Grande. Any easements placed over this water line may restrict the City's ability to repair, maintain, or replace this line when the need arises. Working within a power line easement of this size usually requires a lengthy permitting and review process which has added costs and could severely limit our ability to make timely repairs. In addition to those limitations, some construction equipment may not be able to work directly under the power lines because of the safety risks that can occur from electrical arcing of the high voltage lines. These restrictions usually increase the costs of performing these kinds of jobs. This water pipeline is shown in orange on the attached map.

Construction of a Water Treatment Plant – In the future, state and federal regulatory agencies have indicated that the Safe Drinking Water Act may require municipal ground water sources to be treated with a water treatment plant. If the City were to construct a treatment facility, the logical location would be in the vicinity of the existing drinking water storage reservoirs. With a new power line system passing within these prime areas for this facility, it could eliminate the city's ability to construct this facility within the best area or could place limitations on the type of facility to be constructed. Staff believes that it is not a matter of "if they will require a water treatment plant" but "when will they require a water treatment plant." The logical area for a treatment plant is shown in yellow on the attached map.

Anticipated Hydro Generating Capabilities – The City has an existing Water Master Plan that includes the possibility of placing in-line generators within the Beaver Creek water transmission line to generate electricity when a treatment plant is constructed. It is anticipated that there could be as many as four units placed within the water transmission line in the area from Morgan Lake to La Grande. The City believes that because of the nature of two alternating power sources crossing each other, there could be a transfer of power from one system to another. If the City should construct a power generating system with overhead transmission lines, there would be impacts that would be encountered that would restrict the city's ability to recover this power resource revenue. The area shown by the orange line on the map reflects the location the in-line turbines would be installed.

The View Shed – Residents of the City of La Grande, as well as other Grande Ronde Valley residents and visitors to the area have always had the pleasure of minimal man-made disturbances to the natural scenery. This newly proposed mega system of power lines will have a significant impact on the view shed that is already impacted by the existing power supply lines coming from both Bonneville Power and Idaho Power. Not only would this distract from the natural beauty that we have had the pleasure of enjoying in our everyday lives but also could create an adverse impact to tourism

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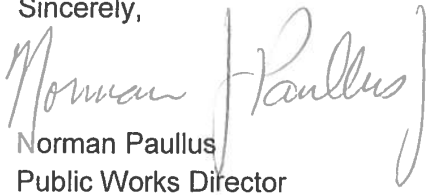
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industry in our area. As an example I would relate it to something similar to the recent construction of the wind mills in the Arlington – Biggs area. At first there was a few which weren't too bad and now the area is littered with them.

Morgan Lake Recreational Area – Morgan Lake is a popular, heavily used recreational area since the mid 1900's. Recreational users enjoy areas close to town for brief periods of outdoor enjoyment. If the power lines are to be located within close proximity of the Morgan Lake Recreational area it would detract from the enjoyment of the many people that take advantage of this unique opportunity. With diminished use, it could become an area of little use or need by the public and adversely impact our quality of life. The Morgan Lake Recreational area is shown just off of the map and reflected by a yellow post-it.

While some of the things mentioned above may seem small in nature to some, the improvements proposed by the B2H project are major and permanent in nature. The B2H power line project has a wide range of impacts that reach far greater than those that I have addressed in its' proposed course of construction and establishment throughout its course from Boardman to Hemmingway. Those that I see in the Union County vicinity are major and need to be scrutinized in greater detail. I hope this helps and if you have any questions concerning this project and its impacts to the City please feel free to call me.

Sincerely,


Norman Paullus
Public Works Director



**Oregon Radon Awareness Program
 Indoor Radon Test Results Summary**

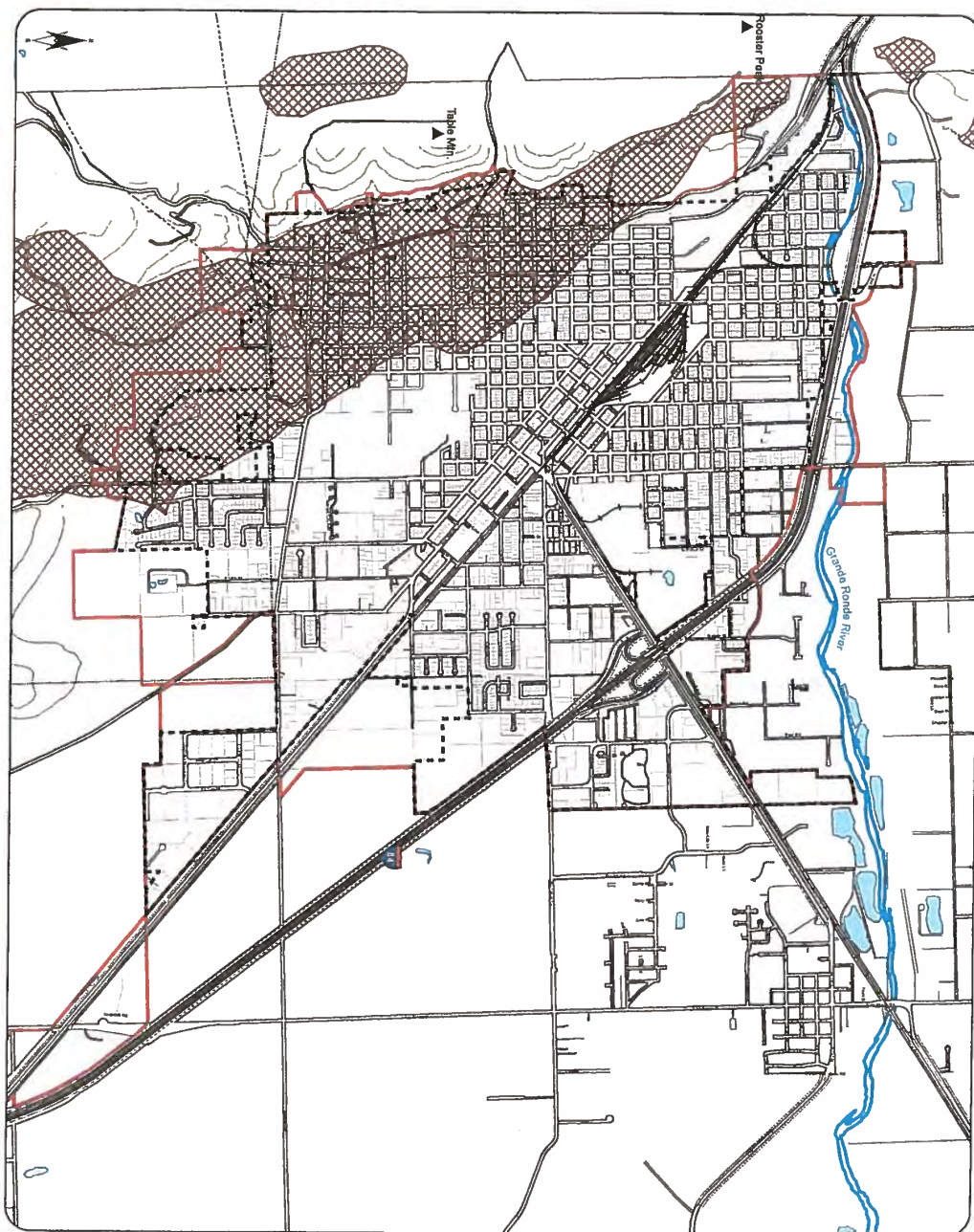
ZIP Code	City	Total Number of Locations Tested	Risk of Elevated Radon	Maximum Result (pCi/L)	Average Result (pCi/L)	Percent of Locations with Result \geq 4 pCi/L
97758	Riley	0	No Data Available	0	0.0	0.0
97759	Sisters	9	*Low*	7	1.9	22.2
97760	Terrebonne	4	No Data Available	1.8	1.0	0.0
97761	Warm Springs	0	No Data Available	0	0.0	0.0
97801	Pendleton	39	Moderate	9.2	1.9	10.3
97810	Adams	2	No Data Available	1.8	1.4	0.0
97812	Arlington	3	No Data Available	1.4	1.0	0.0
97813	Athens	0	No Data Available	0	0.0	0.0
97814	Baker City	64	Moderate	20.5	4.0	37.5
97817	Bates	0	No Data Available	0	0.0	0.0
97818	Boardman	0	No Data Available	0	0.0	0.0
97820	Canyon City	4	No Data Available	8.3	3.2	25.0
97823	Condon	0	No Data Available	0	0.0	0.0
97824	Cove	8	*High*	9.7	4.1	37.5
97825	Dayville	0	No Data Available	0	0.0	0.0
97826	Echo	1	No Data Available	7.3	7.1	100.0
97827	Elgin	12	*High*	22.6	4.6	41.7
97828	Enterprise	12	*Low*	3.4	1.8	0.0
97830	Fossil	0	No Data Available	0	0.0	0.0
97833	Haines	3	No Data Available	5.8	2.8	33.3
97834	Halfway	1	No Data Available	6.8	4.3	100.0
97835	Helix	2	No Data Available	2	1.7	0.0
97836	Heppner	2	No Data Available	2	1.9	0.0
97837	Hereford	1	No Data Available	1.5	1.5	0.0
97838	Hermiston	9	*Low*	7.5	1.9	11.1
97839	Lexington	0	No Data Available	0	0.0	0.0
97840	Oxbow	0	No Data Available	0	0.0	0.0
97841	Imbler	3	No Data Available	2.7	2.2	0.0
97842	Imnaha	0	No Data Available	0	0.0	0.0
97843	Ione	1	No Data Available	6.3	5.0	100.0
97844	Irrigon	3	No Data Available	2.3	1.4	0.0
97845	John Day	4	No Data Available	9	2.8	25.0
97846	Joseph	8	*Low*	3.8	2.3	0.0
97848	Kimberly	0	No Data Available	0	0.0	0.0
97850	La Grande	163	High	47.6	4.5	44.2
97856	Long Creek	0	No Data Available	0	0.0	0.0
97857	Lostine	1	No Data Available	1.6	1.4	0.0
97859	Meacham	0	No Data Available	0	0.0	0.0
97862	Milton Freewater	20	High	23.9	4.2	30.0

Risk Level with asterisks (i.e *Low*) indicates there are only 5-19 locations with a radon test result.

"No Data Available" indicates there were fewer than 5 locations with a test result.

pCi/L = picocuries per liter of air.

Last Modified
 1/9/2019













City of La Grande Geologic Hazard Zone

 Geologic Hazard

Note:

A Geologic Hazard Waiver is required to be signed before a Building Permit for new construction is allowed within the Geologic Hazard Zone.

A Site Plan, meeting the requirements of the Land Development Code, must be submitted to the Planning Division for approval.

-  City Limits
-  UGB
-  Highways
-  Railroad
-  Pipeline
-  Powerline
-  River
-  Mountain
-  Ponds
-  Contour 100ft



Adopted by Ordinance Number 3210, Series 2013

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: Virginia L. Mammen

Address: 405 Balsa
La Grande, OR. 97850

Letter 1
Loop
8-15-19

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

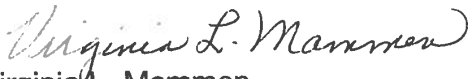
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,


Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

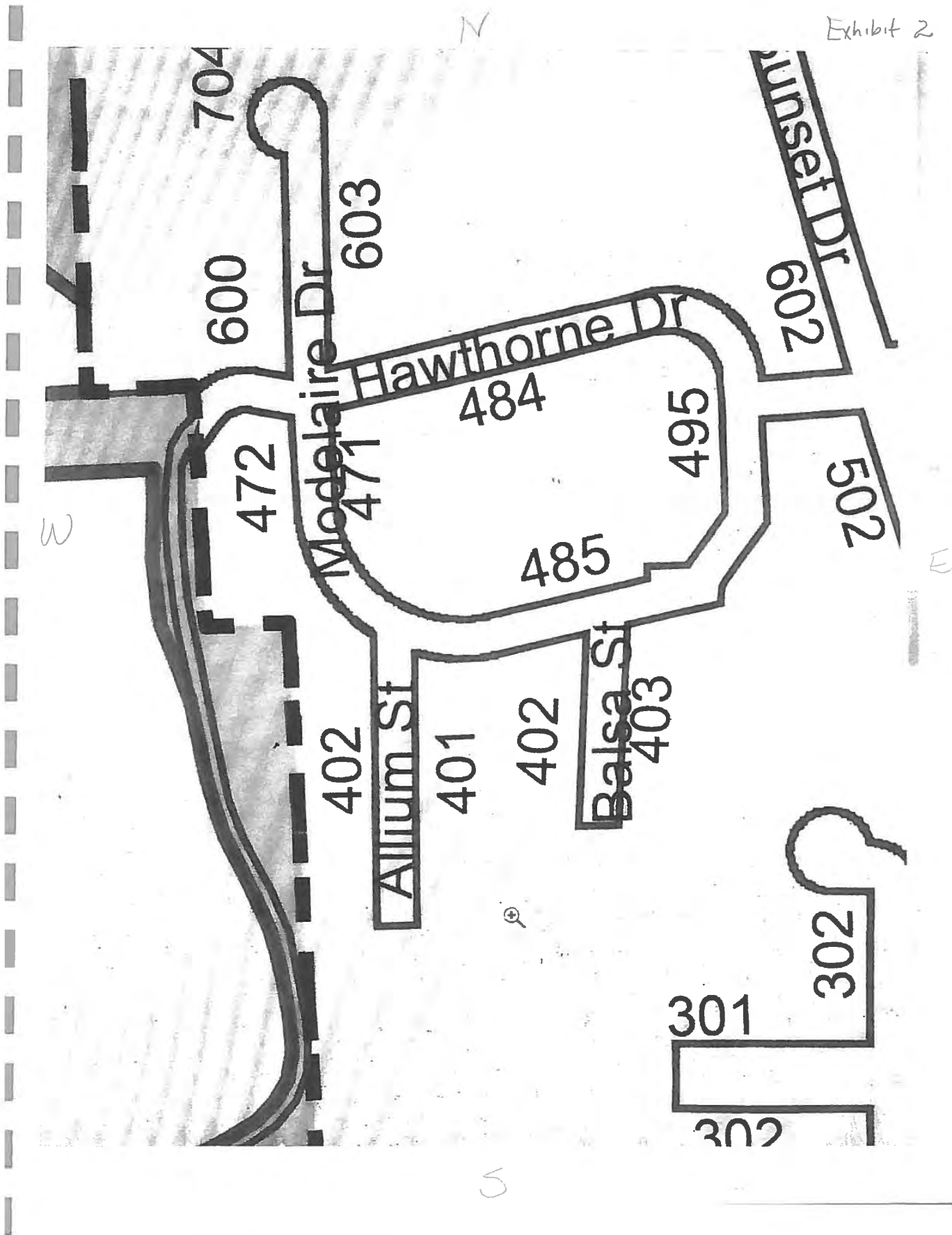


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H APASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services Include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	<p>proposed helipad is a necessary supporting facility.</p> <p>The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, C Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some</p> <p>To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K:</p> <p><i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i></p> <p><i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i></p> <p><i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i></p> <p><i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i></p> <p><i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i></p>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



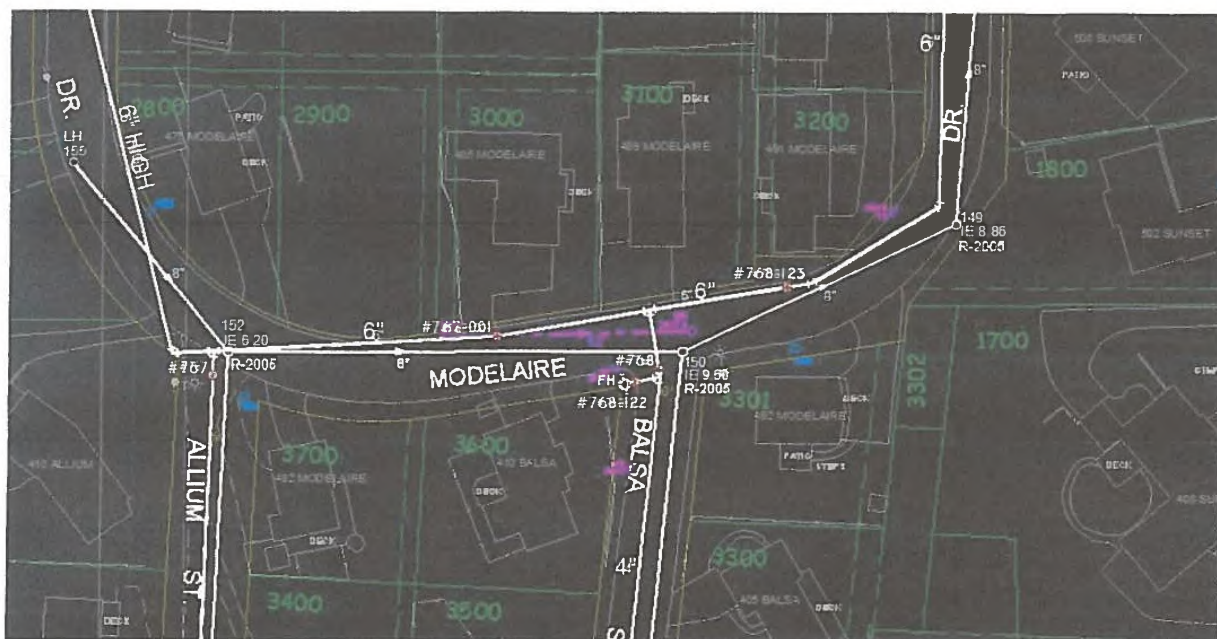
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

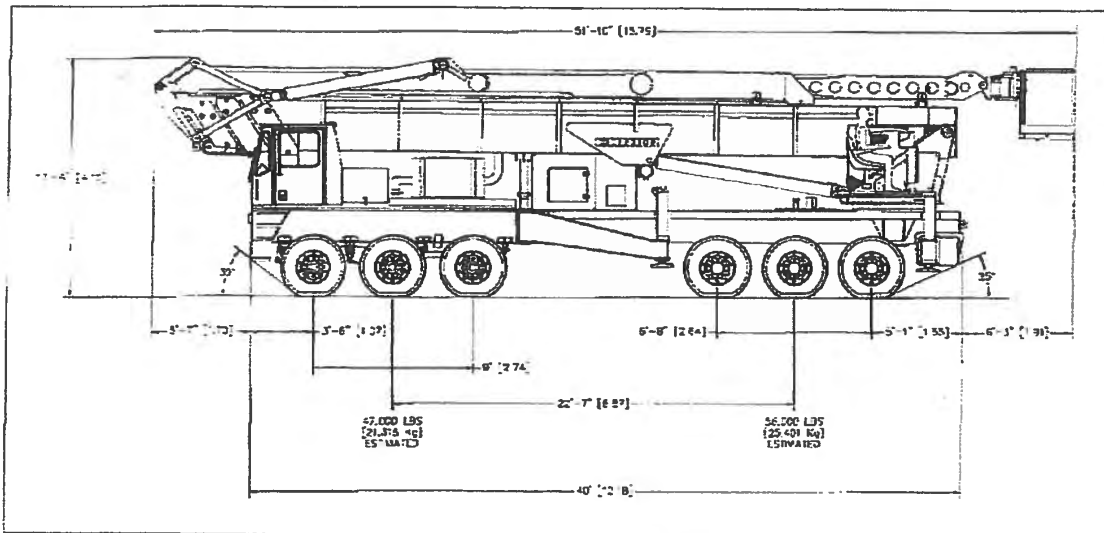


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck trips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
Page 252 of 312

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Transportation and Traffic Plan

Boardman to Hemingway Transmission Line Project

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

Exhibit 13

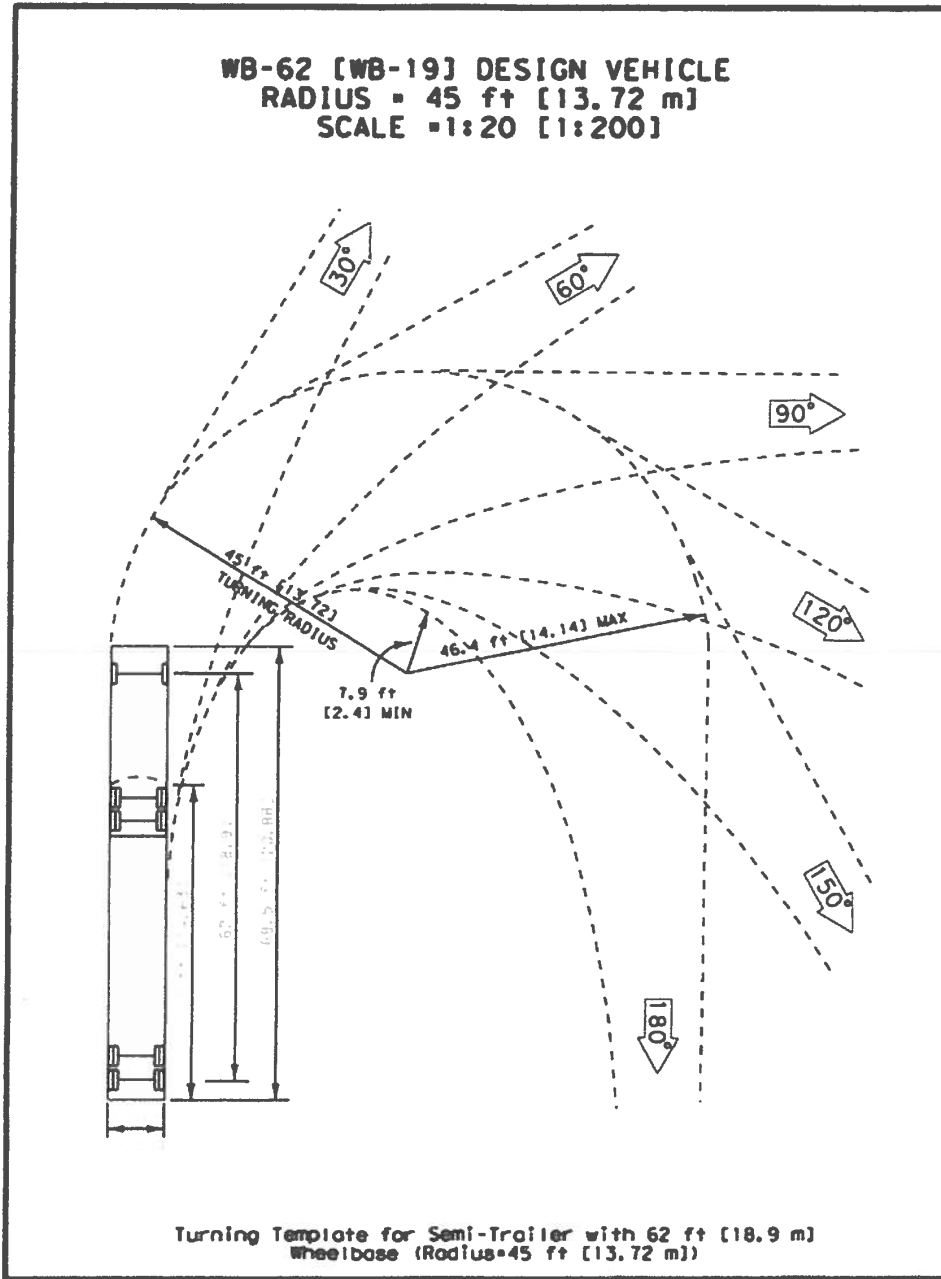


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

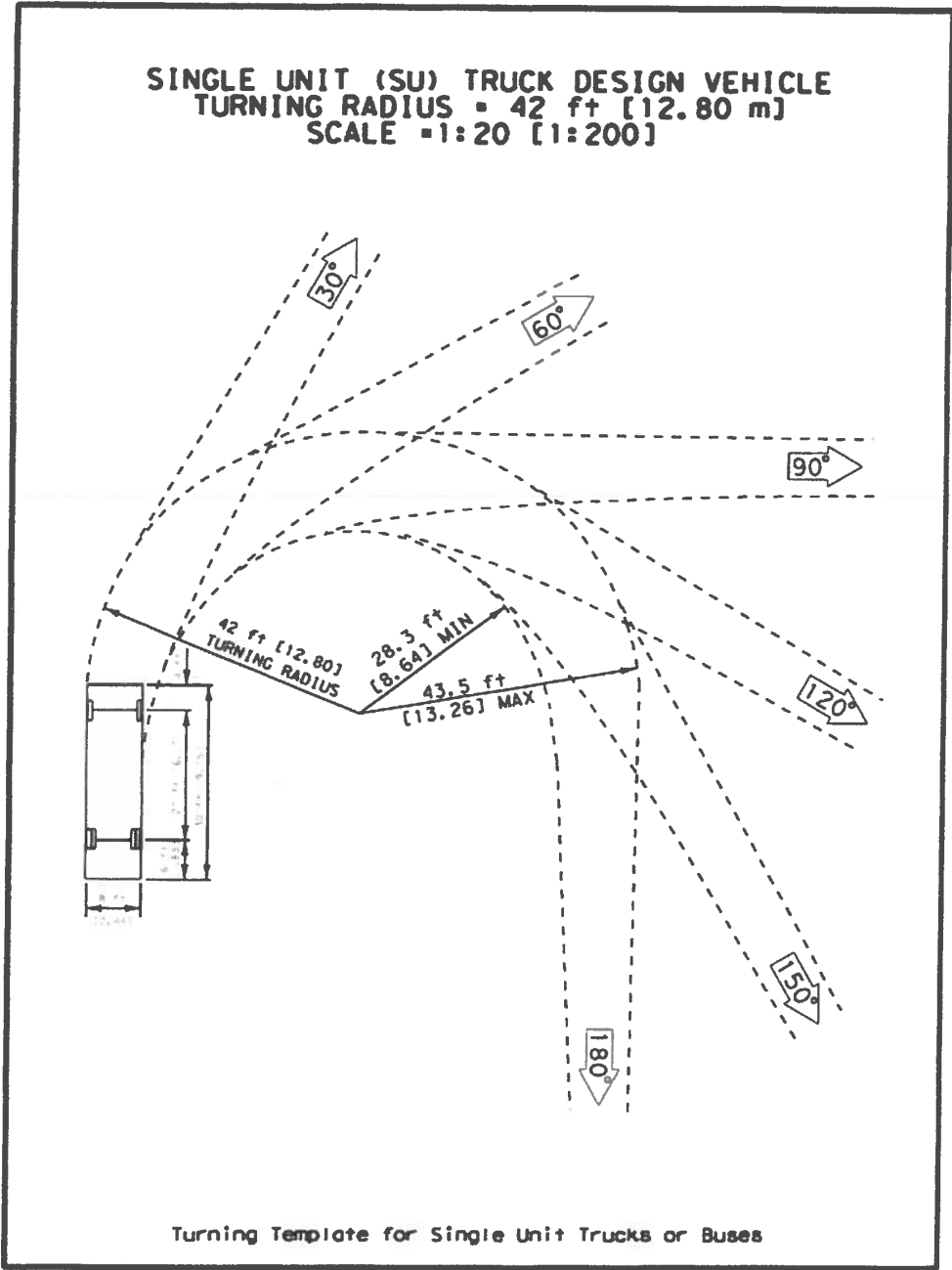


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. **Alley**

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. **Bicycle**

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. **Bicycle Lane**

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. **Bicycle Path**

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. **Block**

The part of one side of a street lying between the two (2) nearest cross streets.

f. **Central Business District**

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.


Section 17. TRUCK ROUTES


- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.


Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES


- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

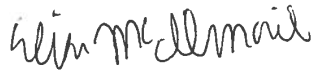
I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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ADDRESS

EMAIL



Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



C. Huxell
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CHRIS HUXELL @ EMAIL.COM

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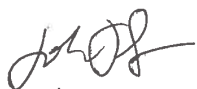
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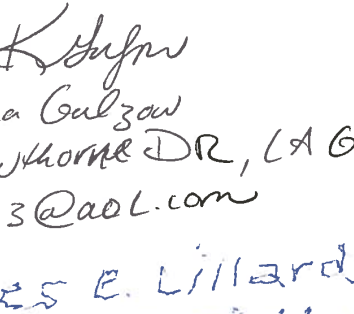
SIGNATURE 
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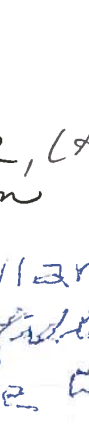
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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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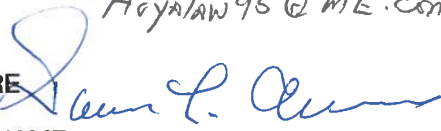
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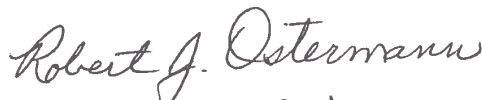
SIGNATURE 
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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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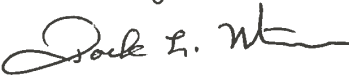
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SIGNATURE *Gary D. Pierson*
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EMAIL -

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EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Merle E. Comfort*
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SIGNATURE *Carol S. Summers*
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SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 Nth St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME Gerald Darwin Juniper
ADDRESS 406 4th St. LaGrande, OR. 97850
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Letter 2
Noise
8-15-19

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

that time the immediate neighborhood has grown to 35 homes with residents who cover the whole range of ages—small children to adults over 80 years of age. In addition there is La Grande's only hospital and a medical clinic right next to us as a neighbor and a grade school two blocks away which serves the education of special needs children of the town as well as other children in the first five grades.

According to OAR 345-022-0110, Public Services (pg. 5, April 2017)"The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." 3

I am aware of OAR 340-0035-0035(5)(g) and (h) 4 regarding construction-related noise impacts and although your application has tried to be reassuring, after reading the OSMRE article Controlling the Adverse Effects of Blasting and learning of vibrations and airblast, 5 I have some serious concerns that do not seem to be addressed by your comments in 3.3.1.1. For example suppose there is a patient in the hospital receiving surgery for a cataract and the blasting occurs causing just a fraction of a second slip of the surgeon's hand or an involuntary movement of the patient. Also both Harvard Medical School 6 and the University of Vermont Medical Center 7 speak to the detriments of noise to healing, causing increased agitation, increased heart rate, inability to sleep etc. Both the blasting and the construction traffic noise would contribute to an unhealthy and possibly extremely detrimental environment. 8

The general neighborhood as mentioned above and the other homes across the route are comprised of all ages. There are those who require sleeping during the day such as those who work at night, those who are ill, elderly, or small children who need to nap. There are also individuals with PTSD 9 who have chosen to live along your chosen route because they required quiet surroundings. The route chosen to place the B2H Transmission Project above La Grande impacts these people as well as those in the hospital, especially when it comes to noise. Constant agitation is a health issue.

Another important place where noise, safety and health collide is the proximity of the grade school mentioned above that houses the special needs children of our town as well as children in the other five grades. Many of these special needs children have autism or other noise sensitivity

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

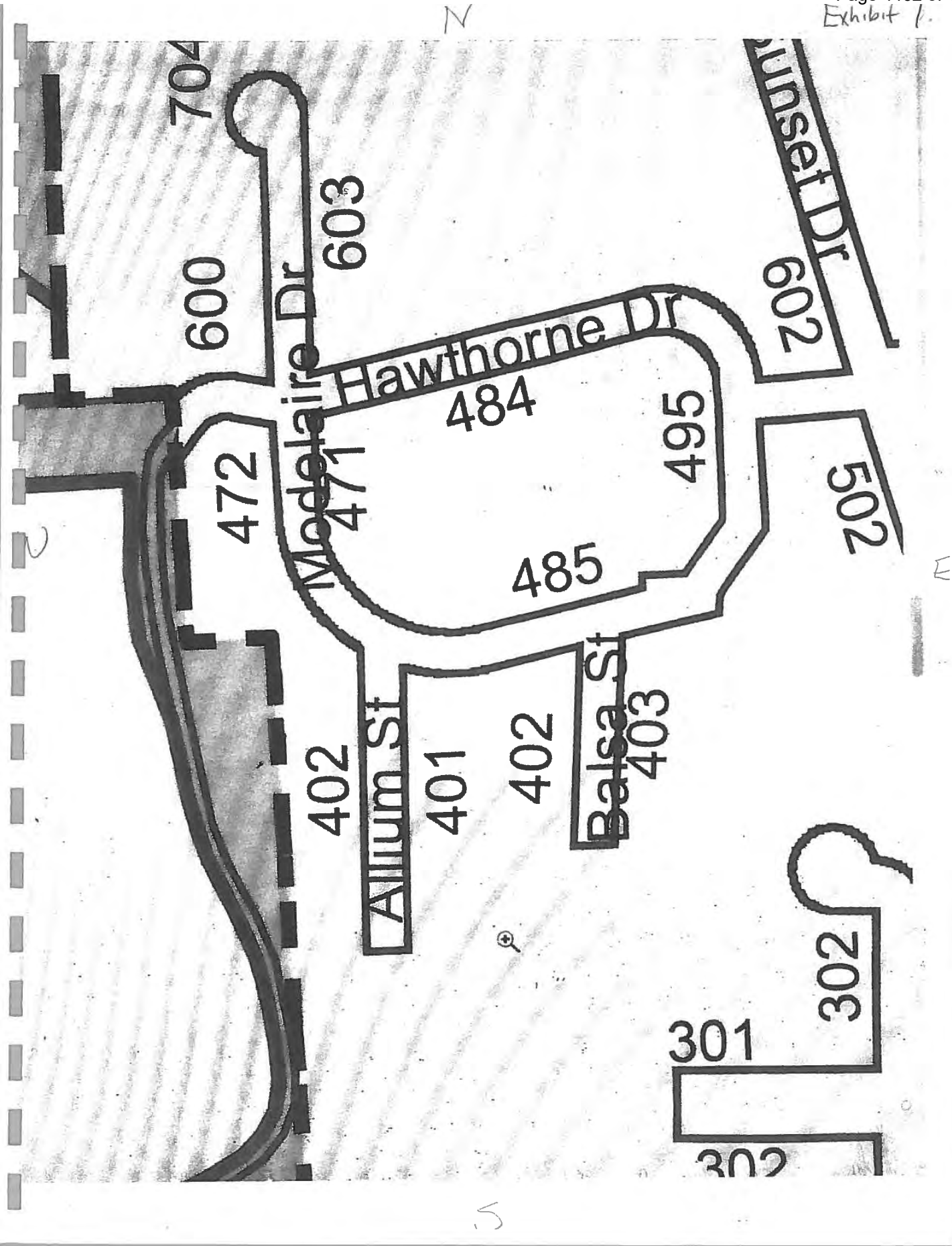


Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

3.3 Predicted Noise Levels

OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation of the proposed facility.

3.3.1 Construction Noise

3.3.1.1 Predicted Construction Noise Levels

Project construction will occur sequentially, moving along the length of the Project route, or in other areas such as near access roads, structure sites, conductor pulling sites, and staging and maintenance areas. Overhead transmission line construction is typically completed in the following stages, but various construction activities may overlap, with multiple construction crews operating simultaneously:

- Site access and preparation
- Installation of structure foundations
- Erecting of support structures
- Stringing of conductors, shield wire, and fiber-optic ground wire

The following subsections discuss certain construction activities that will periodically generate audible noise, including *blasting and rock breaking*, implosive devices used during conductor stringing, helicopter operations, and vehicle traffic.

Blasting and Rock Breaking

Blasting is a short-duration event as compared to rock removal methods, such as using track rig drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills. Modern blasting techniques include the electronically controlled ignition of multiple small-explosive charges in an area of rock that are delayed fractions of second, resulting in a total event duration that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

Lattice tower foundations for the Project typically will be installed using drilled shafts or piers; however, if hard rock is encountered within the planned drilling depth, blasting may be required to loosen or fracture the rock to reach the required depth to install the structure foundations. Final blasting locations will not be identified until an investigative geotechnical survey of the analysis area is conducted during the detailed design.

The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with applicable state and local blasting regulations, including the use of properly licensed personnel and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in Exhibit G, Attachment G-5.

Implosive Devices

An implosive conductor splice consists of a split-second detonation with sound and flash. Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be developed by an individual certified and licensed to perform the work. The plan will communicate all safety and technical requirements including, but not limited to, delineation of the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4a

8/5/2019

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Department of Environmental Quality

Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

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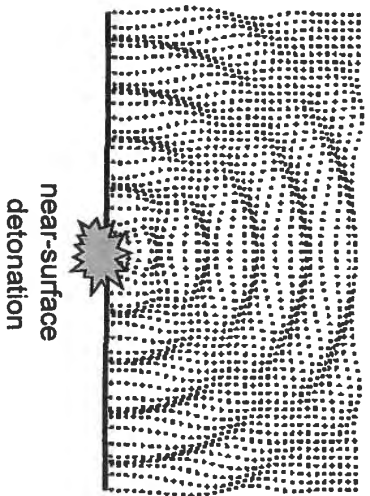
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Airblast

② Airblast is measured as a pressure in pounds per square
③ inch (psi) and is often reported in terms of **decibels (dB)**.

④ Exhibit
Airblast is a pressure wave that that may be audible or in-
audible. Elevated airblast levels are generated when
explosive energy in the form gases escape from the
detonating blast holes. Energy escapes either through the
top stemming or through fractures in the rock along the face
or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

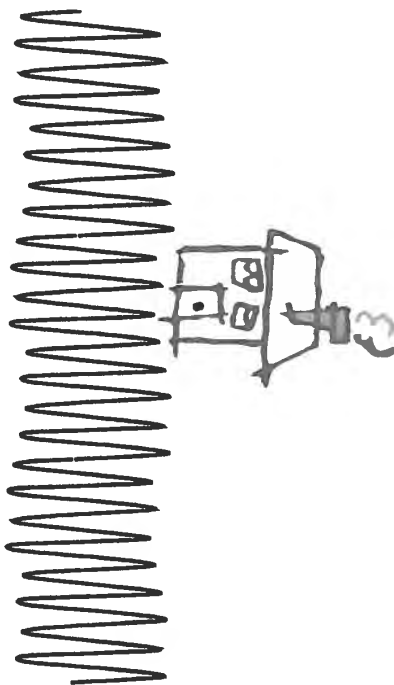
Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

Exhibit 5 F

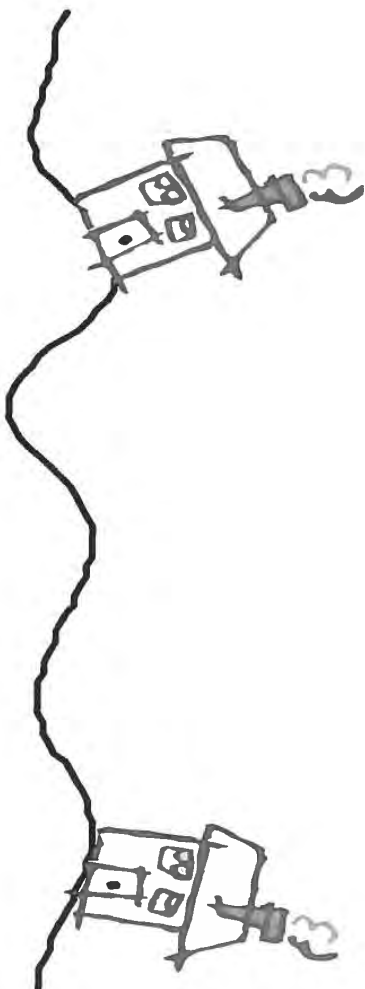


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

Exhibit 6

8/4/2019

A noisy problem - Harvard Health

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Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

THE
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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation
(<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center
(<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

Exhibit 76

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

Exhibit 8a

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 9

8/4/2019

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit a
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2011

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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Related articles



8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10 a



Front Psychol. 2013; 4: 578.

PMCID: PMC3757288

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

5 2 1 1 0 1 2

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, [2007](#); Szalma and Hancock, [2011](#)), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, [2000](#); Wightman and Kistler, [2005](#); Talarico et al., [2007](#); Neuman et al., [2010](#)). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., [1989](#); Fallon et al., [2000](#); Werner, [2007](#)). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., [2001](#); Hall et al., [2005](#); Leibold and Neff, [2007](#)) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, [2005](#)), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., [2003](#); Hall et al., [2005](#)). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, [2000](#)), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, [1996](#); Metsala, [1997](#); Mayo et al., [2003](#)). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, [1979](#)). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, [2005](#)). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, [1973](#); Pearson and Lane, [1991](#); Coch et al., [2005](#); Wightman et al., [2010](#); Gomes et al., [2012](#)).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., [1996](#); Ziegler et al., [2005](#), [2009](#)). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q ☰

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011
For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Shares

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)





SCIENCE
NEWS


EXPERT
OPINION


[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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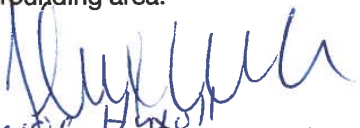
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ESTERSON Sarah * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Wednesday, August 21, 2019 1:02 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019
Attachments: Scan 2019-8-21 12.53.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached 5 letters addressing concerns of risks to our community during and after construction of the proposed transmission line.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 20, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order May 23, 2019.

Chair Beyeler and Members of the Council:

I have sent previous letters expressing many concerns several relating to the noise, from both the blasting and the construction traffic, and how it will possibly affect the area and the people within the vicinity of the Modelaire/Hawthorne Loop. After sending those letters I obtained further information which I found very unsettling. Attached you will find letters expressing concerns and within them you will find two which specifically address noise.

In Letter 1. APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT. Those of us who live within the area of the Modelaire/Hawthorne Loop (which also includes Grande Ronde Hospital and Central Elementary School) are concerned about the "during construction phase" as well as the after.

In Letter 2 IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) "the applicant.....failed to include noise modeling or include all receptors within the 1/2 mile area beyond the entire site perimeter.....and failed to include all noise sensitive property as they did not include churches, schools, libraries, or hospitals...."

I personally contacted individuals regarding Grande Ronde Hospital and Central Elementary School, both of which are within 1/2 mile of the entrance of the site at the top of Hawthorne Drive. Regarding the hospital I spoke with the former CEO of the hospital (he retired in November 2018

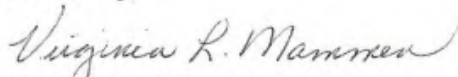
after serving over 25 years) and with at least three others (administrators or board members) who all said they had never been contacted regarding noise of any kind by the applicant/developer. In fact they had not been notified of anything.

My next visit was with the former and current school superintendents, Chairman of the School Board (who has served on the Board for over 10 years), and the Principal of Central Grade School. None of these people had ever been contacted and were all deeply disturbed that they had not been notified of the possible noise which could greatly disrupt the children, especially those who are noise sensitive, such as the special needs students.

Besides the hundreds of people employed in or being served by those two facilities there are also homes in the area with those suffering from other noise sensitive health conditions. None of those residents had any notification. In fact after contacting nearly all of those living on the Modelaire/Hawthorne Loop I found only three persons that had had any contact from the applicant/developer. Two of those were out of the city limits and on a county road above the Loop. My home is less than a quarter of a mile from the entrance to the site and I have received nothing.

OAR 345-022-0110 Public Services (pg. 5. April 2017) states "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." There are so many aspects of negligence, disregard and inconsideration involved in the decision to place the site route this close to such a large populated area, the Council should not condone this request but should deny the request for the site certificate.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, OR 97850

letter 1

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

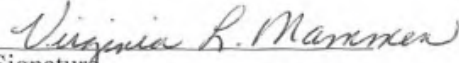
Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name: Virginia L. Mammen
Mailing Address: 405 Balsa
La Grande, OR 97850

letter 2

4

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT PROPOSED ORDER

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

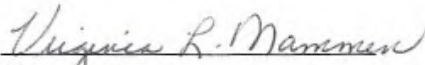
IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) which states that Exhibit X must include information about noise generated by construction and operation of the Project within ½ mile of the site boundary. The site boundary means "the perimeter of the site of a proposed energy facility, it's related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant" (OAR 345-001-0010(55)).

1. The applicant lists the areas which are included in the site boundary in Exhibit F, Page F-2, however, they failed to include noise modeling or include all the receptors within the ½ mile area beyond the entire site perimeter.
2. The applicant failed to do noise modeling for all noise sensitive property as they did not include churches, schools, libraries, or hospitals as is required by the definition in OAR 340-035-0015(38).
3. The applicant also failed to include the noise identified in OAR 340-035-0035(1)(b)(B)(ii) as not being exempt from the ambient statistical noise level indirectly caused by or attributable to that source including all its related activities. This section states, "Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The application is not complete prior to the applicant finishing Exhibit X to include all sources required by this rule as

well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

No Proposed Order can be issued until the developer has shown that they meet the requirements at the time a site certificate is issued. OAR 345-015-0190(5) allows the Department to find the application is complete when the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. While not all information required by OAR 345-021-0000 and 0010 must be submitted, there must be information adequate to show they meet the requirements or will meet them by implementing the conditions contained in the site certificate. The draft site certificate does not assure that the noise standard will not be exceeded, and the developer has not provided noise modeling or included modeling for all required sources of noise to establish the ambient statistical noise level of the development for all NSR's. Missing information includes: 1. Identification of all noise sensitive receptors within ½ mile of the entire site boundary; 2. Identification and notice to the owners of all noise sensitive properties; and 3. Modeling which includes Items (5)(b) - (f), (j), and (k) which cannot be excluded from the ambient noise measurement.

Sincerely,


Signature

Printed Name: Virginia L. Mammert

Mailing Address: 405 Balsa
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

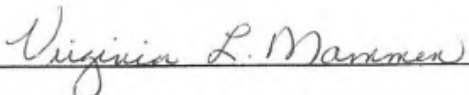
7

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: Virginia L. Mammen

Address: 405 Balsa
La Grande, OR. 97850

August 10, 2019

Energy Facilities Siting Council
Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Vial EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

Regarding the Boardman to Hemingway Transmission Project, the monitoring of noise to establish baseline noise levels failed to comply with the requirements of OAR 340-035-0035(3)(b). This rule establishes the location and procedure for completing sound measurements as listed in the Sound Measurement Procedures Manual 1. The location is specifically described as the further point from the noise source between a point 25 feet toward the noise source from the noise sensitive building or the point on the property line nearest the noise source.

Idaho Power ignored the specific procedural requirements for establishing a baseline noise level in several ways:

1. They placed measuring points “representative of the house and yard accommodations.” Measuring points were placed “in similar surroundings experiencing the same weather and acoustic conditions of where a resident was expected to spend the majority of time when outdoors,” or they were placed to accommodate the homeowner’s request. (See 3.2, Page 7 of Attachment X-2, Baseline Sound Survey) The procedure for doing noise monitoring to establish baseline very specifically defines where the monitoring equipment is to be placed in relation to the noise sensitive property. Note that on Page 549, line 16 through 24 of the Draft Proposed Order states that the monitoring positions were 25 feet toward the source. This is not what the developer says. In fact, by changing the measurement point or using measurements from one residence to assume sound level at others makes all the measurements invalid that was not performed at the stated location for each residence. On page 7 of the Attachment X-3, Supplemental Baseline Sound Survey for the Tub Mountain, Burnt River, and East of Bombing Range Road Alternate Corridors, the developer states, “MPs were placed in similar surroundings experiencing the same weather and acoustic conditions to where a resident was expected to spend the majority of time when outdoors. However, some property owners voiced opinions and preferences on the exact locations of the MP on their properties.” No reliable results can be obtained when the individual(s) doing the monitoring do not adhere to the strict protocol used to complete the monitoring.
2. When modeling results showed a “potential for increasing sound levels by 10 dBA or less,” the developer assumed compliance with the ambient degradation standard and did not complete testing to determine baseline sound levels. (Page 5, Line 24 of Attachment X-2, Baseline Sound Survey) This did not provide for any margin of error as any level over 10 dBA would be an exceedance of the standard. The developer failed to apply a reasonable margin of error, which would have resulted in doing measurements for any residence predicted to have an increased sound level of 8 dBA to allow for 95% reliability. See attachment “Uncertainty of L_{DEN} Calculation for corona noise from Ultra High Voltage power lines using reference methods” by T. Wszolek, AGH University of Science and Technology, Department of Mechanics and Vibroacoustics. September 30, 2006.


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3. The practice of using a baseline sound measurement at a single monitoring point to represent a group of nearby noise sensitive properties is unacceptable. The developer stated that "due to the large number of NSRs identified within the analysis area, it was not feasible to conduct baseline monitoring at every individual noise sensitive property." (Page 5, Line 36, Attachment X-2, Baseline Sound Survey.) The noise rules do not require noise monitoring. They do state the methods that are to be used to establish baseline noise levels in the event the developer chooses to do actual noise measurements. The developer had the option and could have taken it to use the standard assumed 26 dBA for any noise sensitive property they were not able to monitor per the prescribed methods for any reason.
4. The only monitoring results which should have been used to establish a baseline noise level other than the standard should have been the 22 measuring points which performed during the entire monitoring period, assuming they were placed at a location as described in OAR 340-035-0035(3)(b). Locations, where baseline modeling was not completed per the DEQ protocol, need to use the assumed baseline sound measurement. Instead, the developer used the measurements from one residence to establish what they thought it would be at another; they averaged the results from MP 13 and MP 16 to guess at the measurement at MO 15. These MP's were located roughly 5 miles in different directions from MP 13 and MP 16. See description on page 8, lines 17 through 26, Attachment X-2, Baseline Sound Survey, for an example of the shoddy methods used to complete the monitoring, which clearly would not hold up under peer review.
5. While the developer makes several references to the methodology used in the Big Eddy Knight transmission line EIS, the final outcome regarding noise was that the developer would not be allowed to exceed the noise standard.

Idaho Power failed to follow the methodology for establishing a baseline noise level required by OAR 340-035-0035 or use the assumed baseline noise level resulting in the establishment of flawed baseline noise levels. None of the results of the noise modeling can be assumed to be accurate as a result. All material needs to be corrected and resubmitted.

No site certificate can be issued due to the lack of compliance with the noise monitoring protocol.

Sincerely,


Signature

Printed Name: Virginia L. Mammen

Mailing Address: 405 Balsa
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

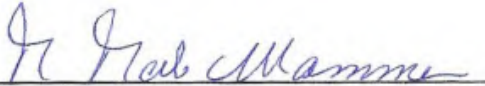
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The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: D. Dal Mammee

Address: 405 Balsa
La Grande, OR. 97850

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

11

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,

D. Dale Mammor

D. Dale Mammor

Name:

405 Balsa

Address:

LA Grande, Or 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

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The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

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As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

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The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet of less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,

D. Dale Mammen

Name: D. Dale Mammen

Address: 405 Balsa
La Grande, OR. 97850

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

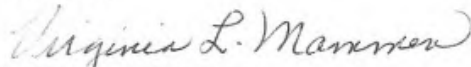
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

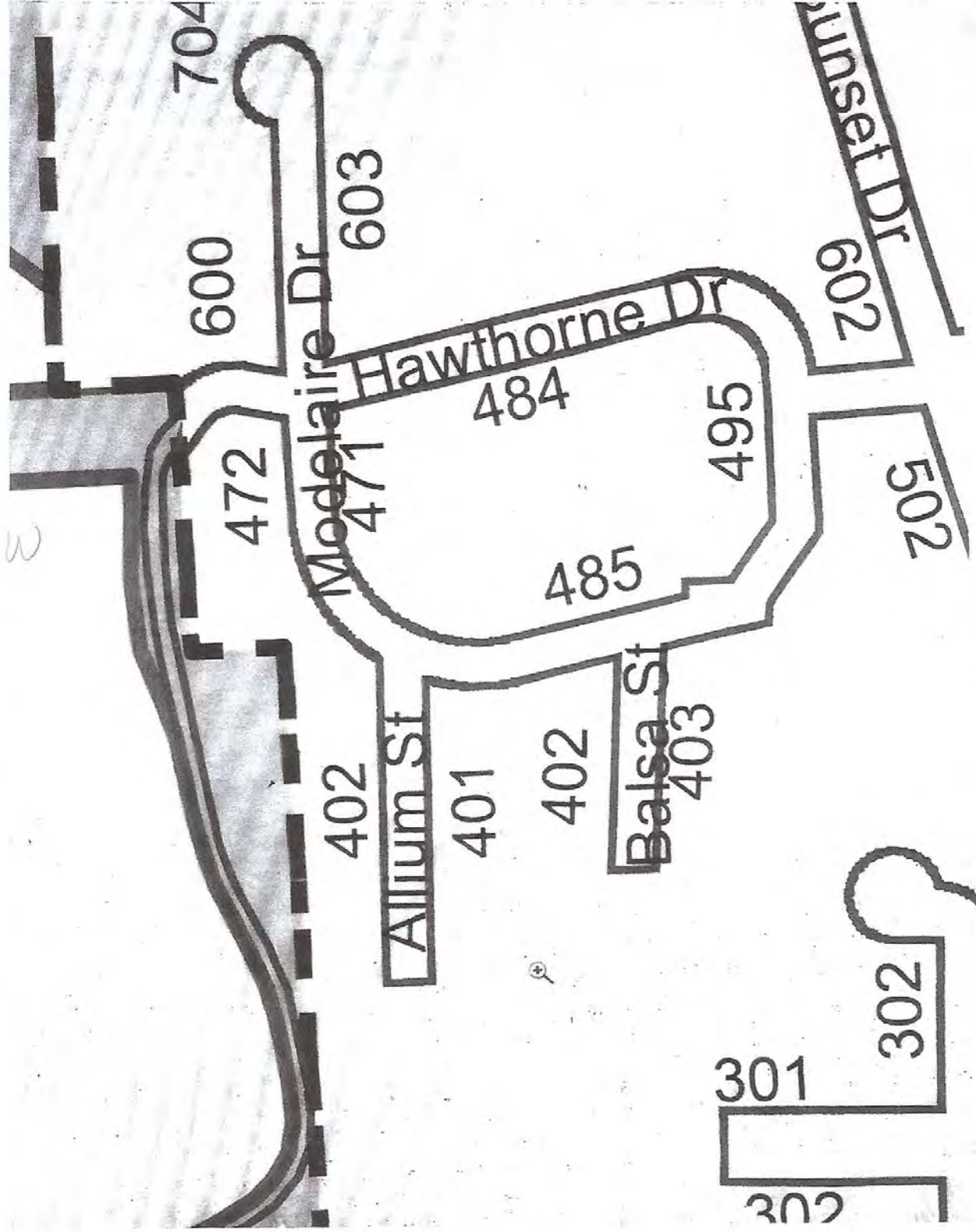


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



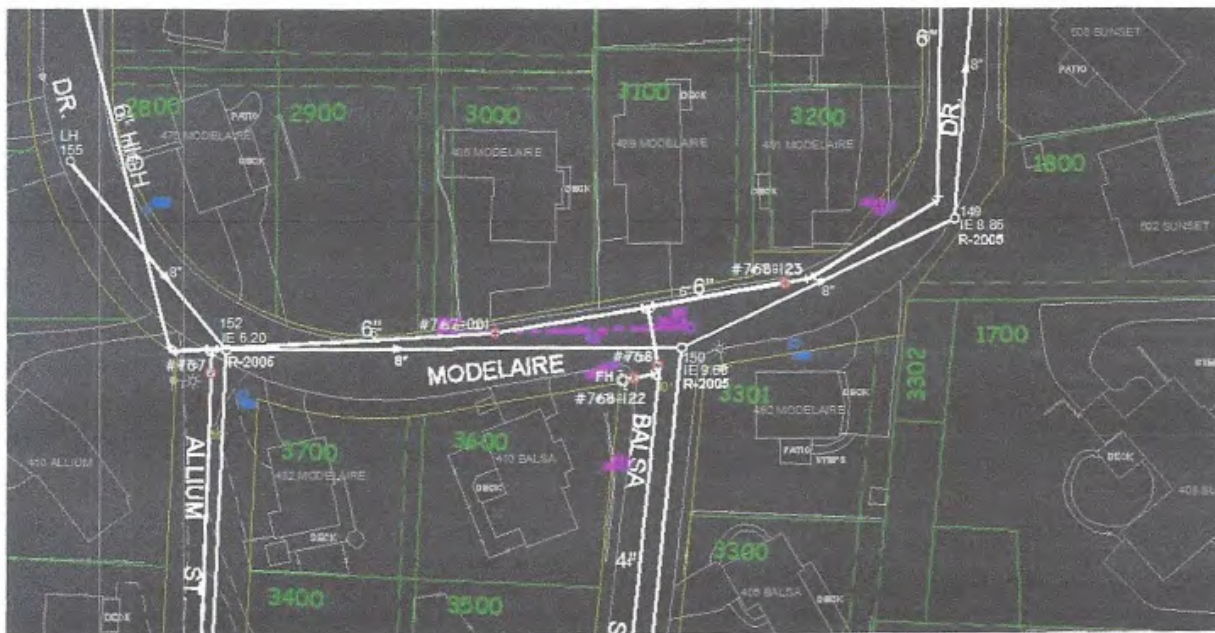
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

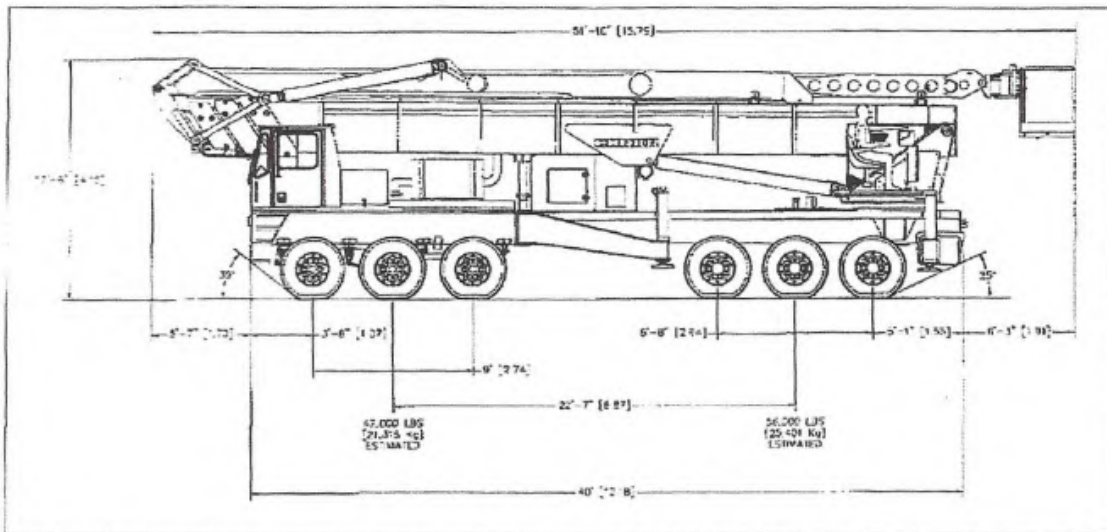


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
Series 2018
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ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

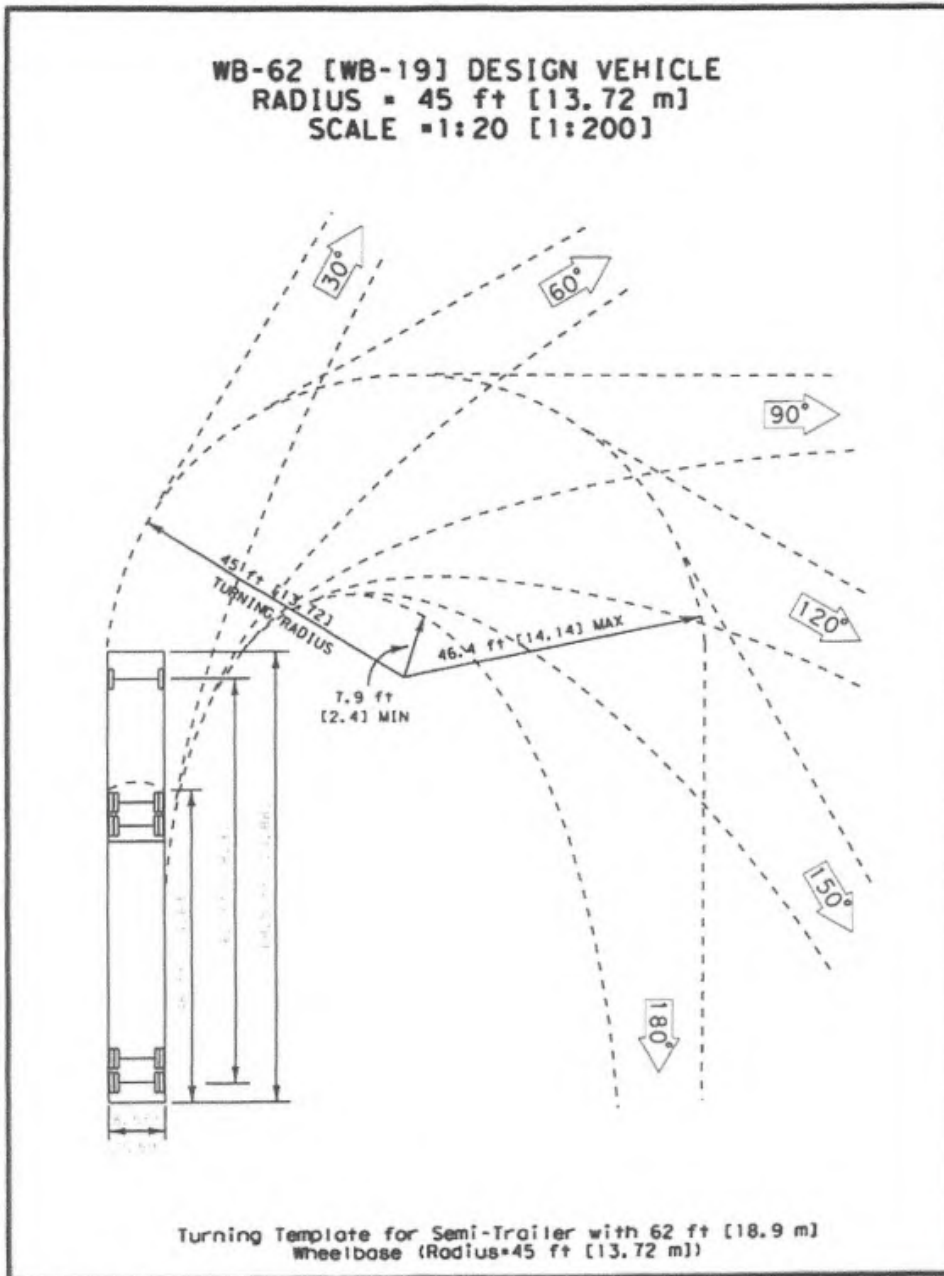


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

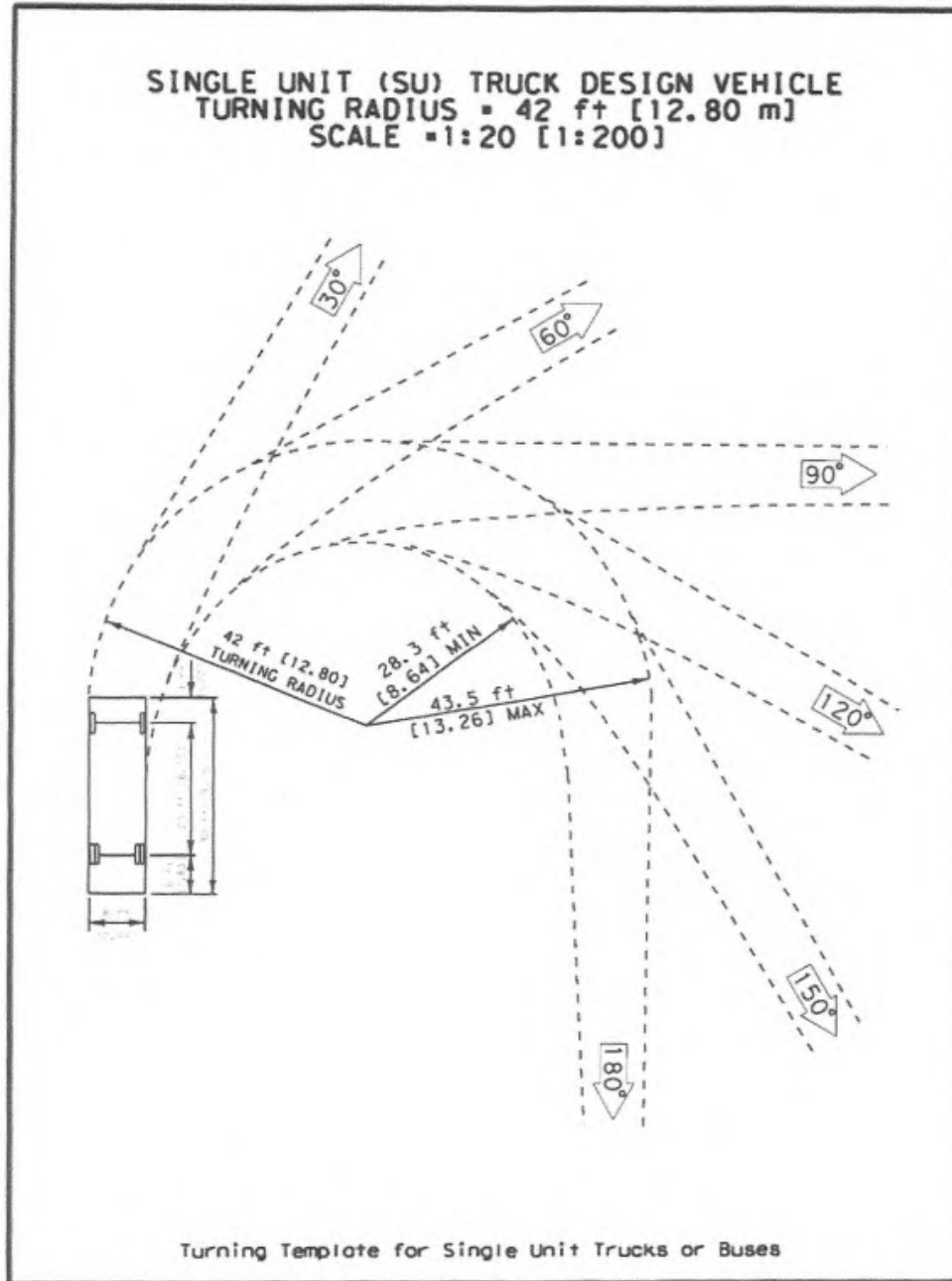


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

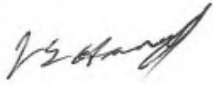
Section 17. TRUCK ROUTES

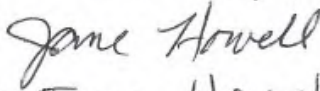
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

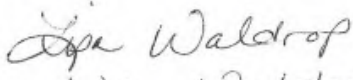
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

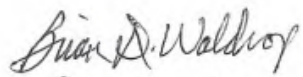
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

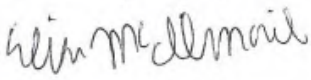
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SIGNATURE 
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SIGNATURE 
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EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRES DR.
EMAIL mcilmail115@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

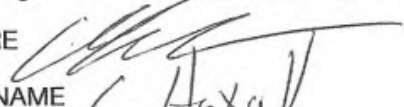

Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

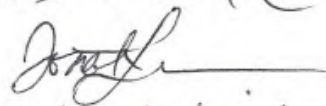

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SIGNATURE

PRINTED NAME

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Jonah Lindeman
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Marie Skinner
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marieskinner@hotmail.com

SIGNATURE

PRINTED NAME

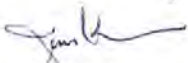
ADDRESS


EMAIL

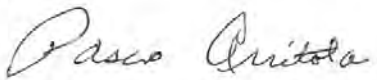
Blake Bars
Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

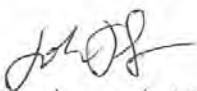
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SIGNATURE 
PRINTED NAME D. Dale Mammen
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EMAIL d mammen @ coni. com


SIGNATURE 
PRINTED NAME Jim Kreider
ADDRESS 6036 Marvin Rd
La Grande, OR 97850
EMAIL jkreider@campblackdog.org

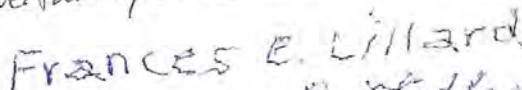
SIGNATURE 
PRINTED NAME Judie Arritola
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SIGNATURE 
PRINTED NAME Pasco Arritola
ADDRESS 603 Modelaire La Grande, OR
EMAIL Pstola@charter.net


SIGNATURE 
PRINTED NAME John Bazuta
ADDRESS 414 Hawthorne LG, OR 97850
EMAIL

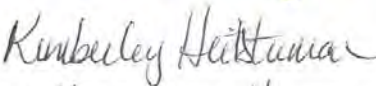
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SIGNATURE 
PRINTED NAME Andrea Galzow
ADDRESS 486 Hawthorne DR, La Grande
EMAIL foreverfamily33@aol.com


SIGNATURE 
PRINTED NAME Frances E. Lillard
ADDRESS 477 Madelaine Dr. L.G.
EMAIL

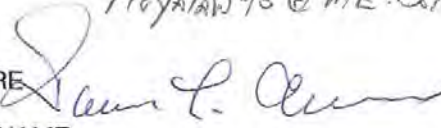
SIGNATURE 
PRINTED NAME Brent H. Smith
ADDRESS 410 Allium St
EMAIL smithbrent@gmail.com

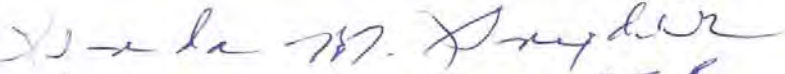
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

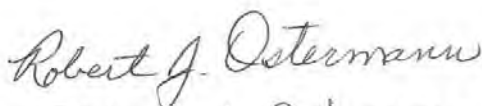
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
ADDRESS 2409 CENTURY LP, LA GRANDE, OR 97850
EMAIL kimheitstuman@hotmail.com

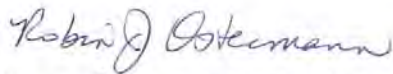
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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
ADDRESS 2909 E. M. Ave,
EMAIL HoyalaW95@ME.com


SIGNATURE 
PRINTED NAME
ADDRESS Dennis L. ALLEN #41- 9637720
410 Balsa Street LaGrande, Oregon 97858
EMAIL N/A

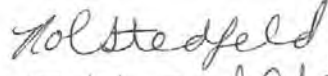
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire
EMAIL

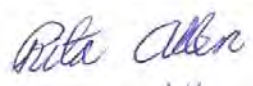
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

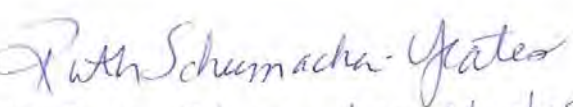
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PRINTED NAME Robin J. Ostermann
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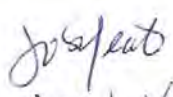
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SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Modelaire Dr
EMAIL jondwhite418@gmail.com

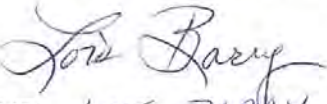
SIGNATURE 
PRINTED NAME Robin Stedfeld
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EMAIL rstedfeld@yahoo.com

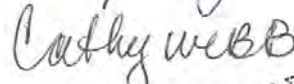
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

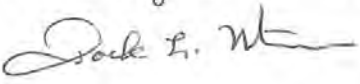
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
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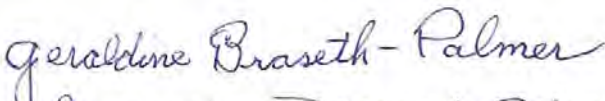

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
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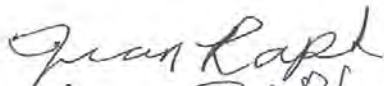
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SIGNATURE 
PRINTED NAME Lois BARRY
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EMAIL loisbarry31@gmail.com

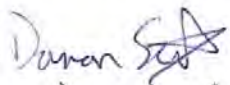
SIGNATURE 
PRINTED NAME CATHY WEBB
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EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gilcrest Dr. LaGrande
EMAIL Buff Martin 27 @GMail .com

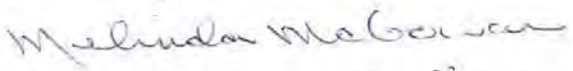
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
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EMAIL 


SIGNATURE 
PRINTED NAME Jean BAPH
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EMAIL Jraph19@gmail.com

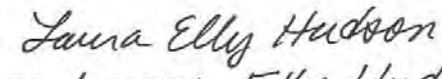
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SIGNATURE 
PRINTED NAME Damon Sexton
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SIGNATURE 
PRINTED NAME Cory Sexton
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PRINTED NAME Melinda McGowan
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SIGNATURE 
PRINTED NAME Laura Elly Hudson
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SIGNATURE *Gary D. Pierson*
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EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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SIGNATURE *Heather M. Null*
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SIGNATURE *Bert R. Frewing*
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
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SIGNATURE *Robin L. Maille*
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SIGNATURE *Bruce C Kevan*
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SIGNATURE *Carol S. Summers*
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EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

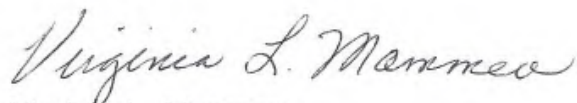
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

Sincerely,

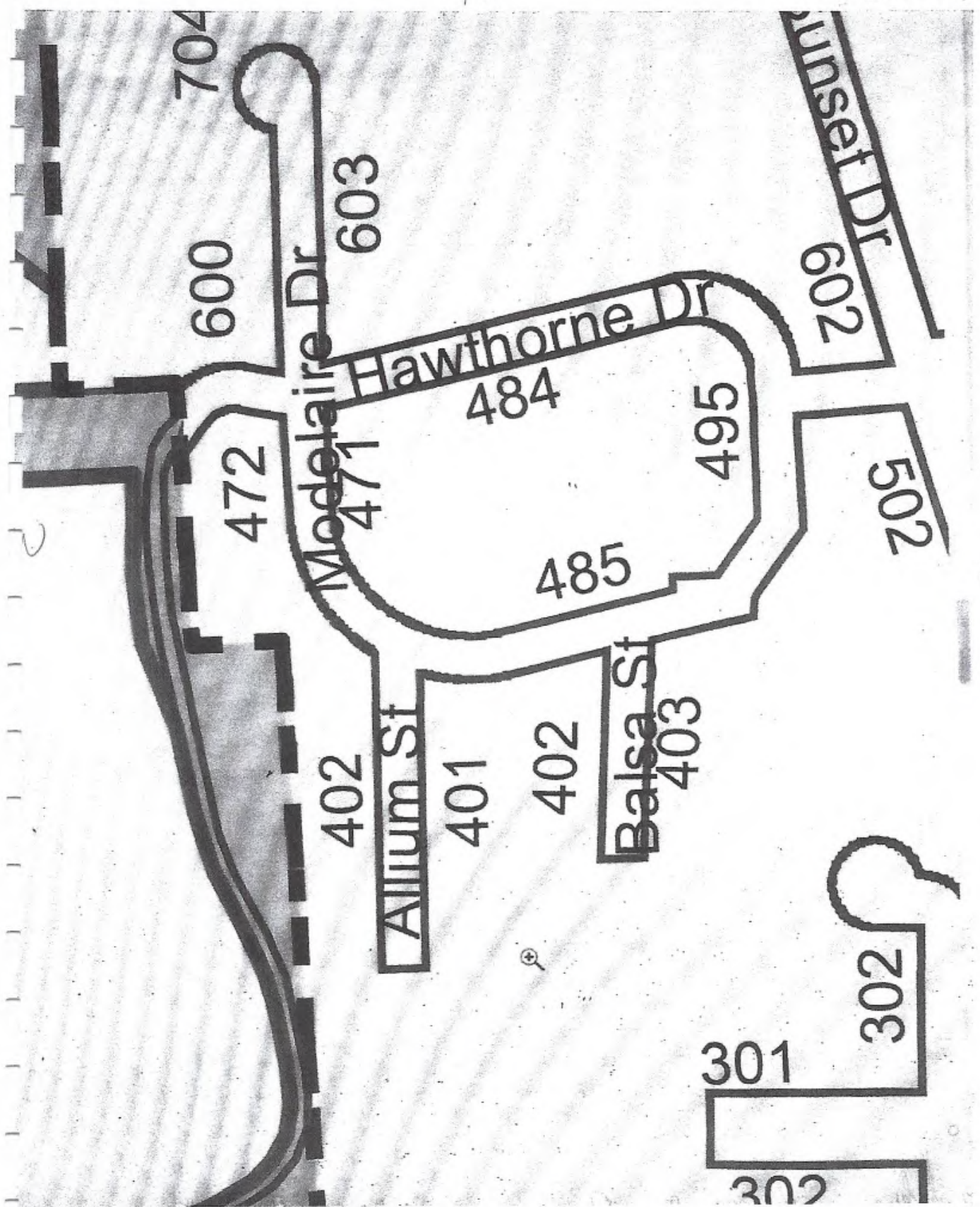


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



2

11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



8/5/2019

Oregon Secretary of State Administrative Rules

Exhibit 4a

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

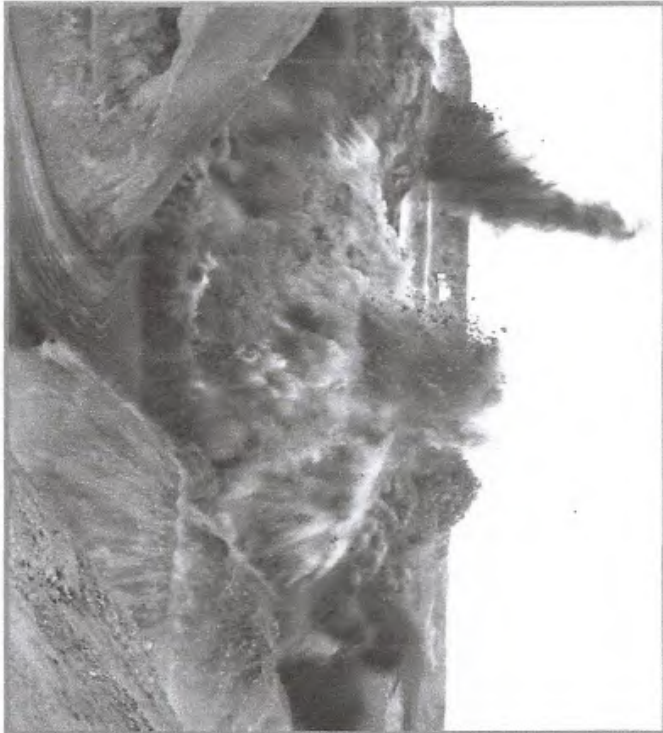
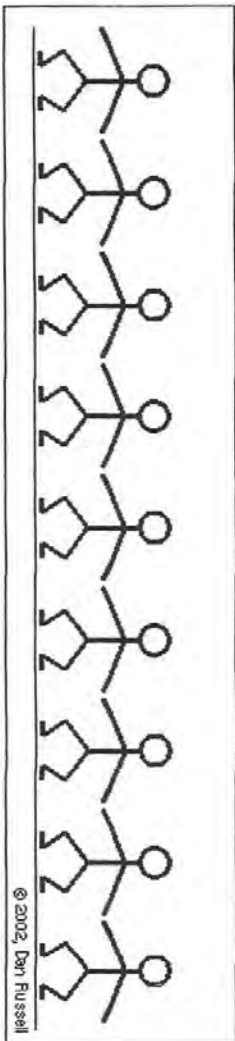


Exhibit 5b

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

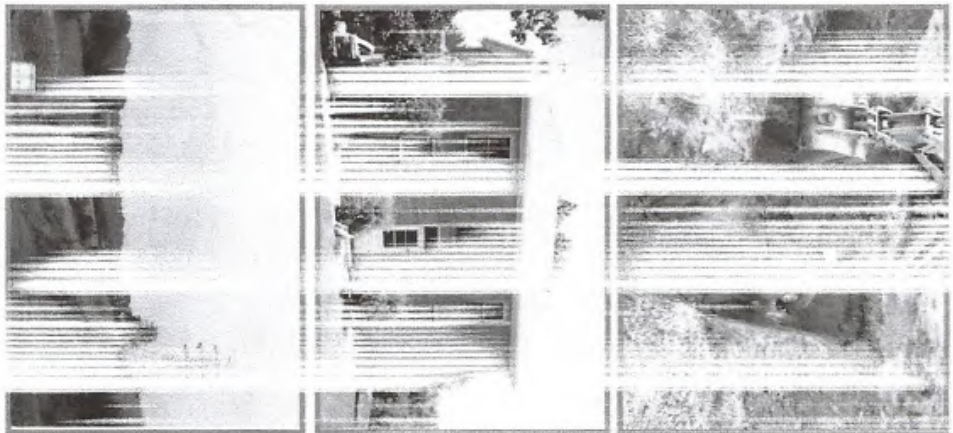
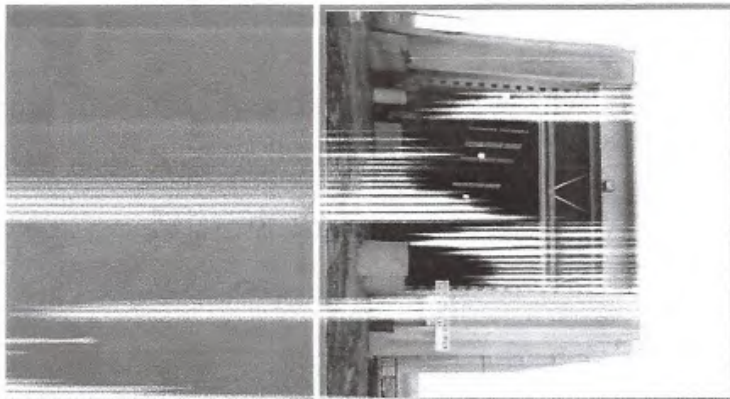
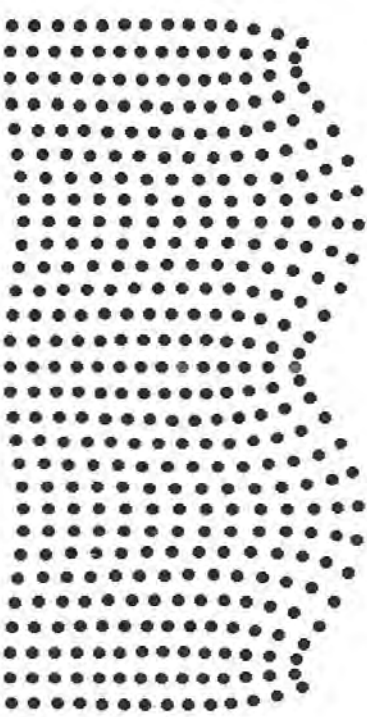


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

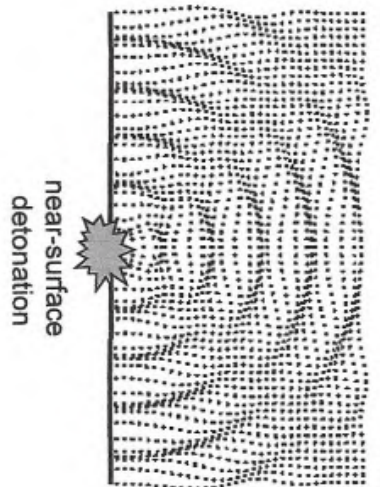
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

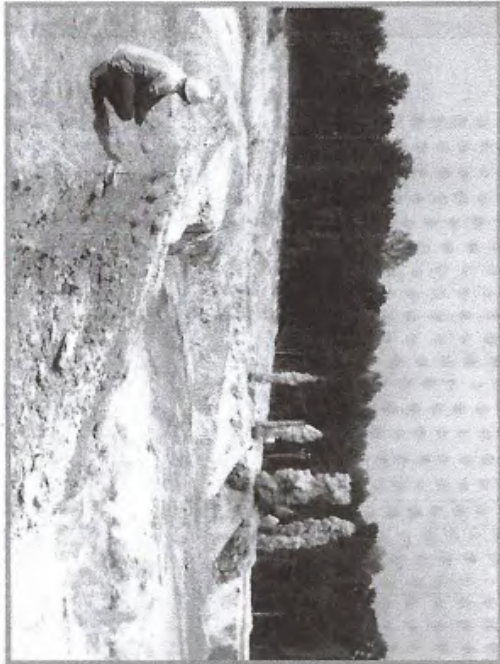
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

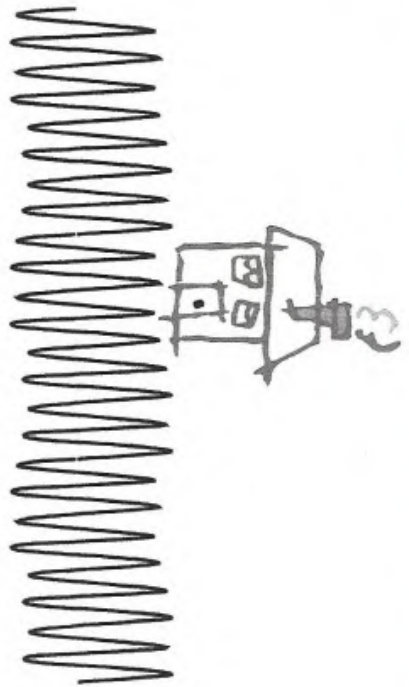
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

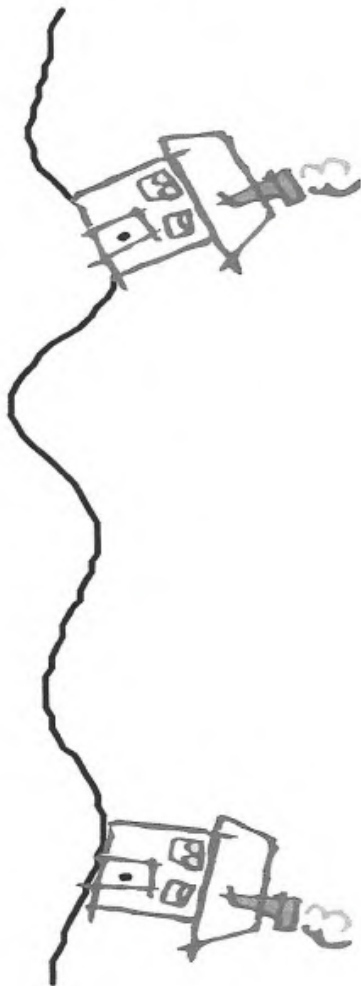


Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



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A noisy problem - Harvard Health

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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

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Hospital Noise: How Noise Reduction Helps Patients Heal



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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

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Hospital Noise: How Noise Reduction Helps Patients Heal

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Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

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Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB – nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



Front Psychol. 2013; 4: 578.

PMCID: PMC3757288

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10/12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q ☰

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)

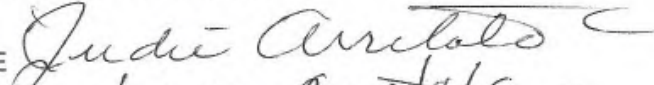



SCIENCE
NEWS


EXPERT
OPINION

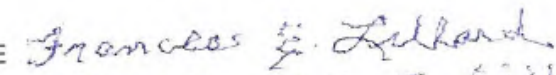
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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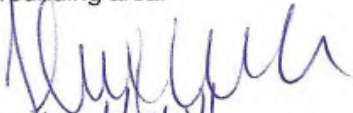
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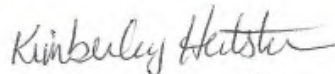
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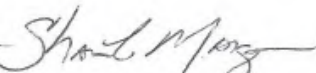
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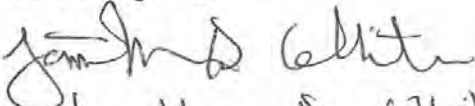
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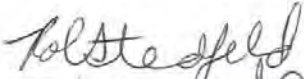
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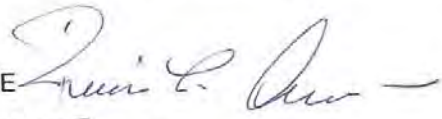
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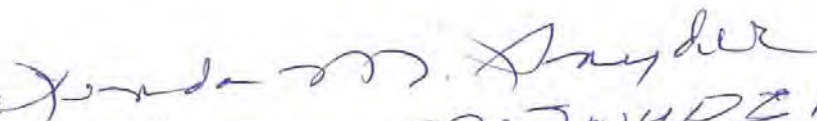
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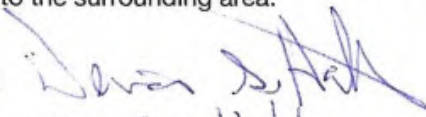
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SIGNATURE



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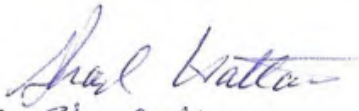
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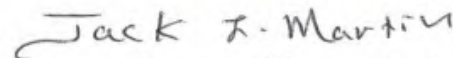
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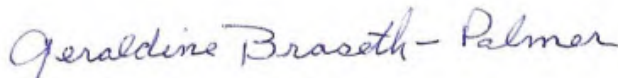
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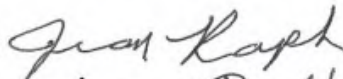
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TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

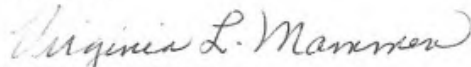
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

Exhibit 1

City of La Grande Ordinance Number 3242,
 Series 2018
 Page 236 of 312

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁶	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

Exhibit 2

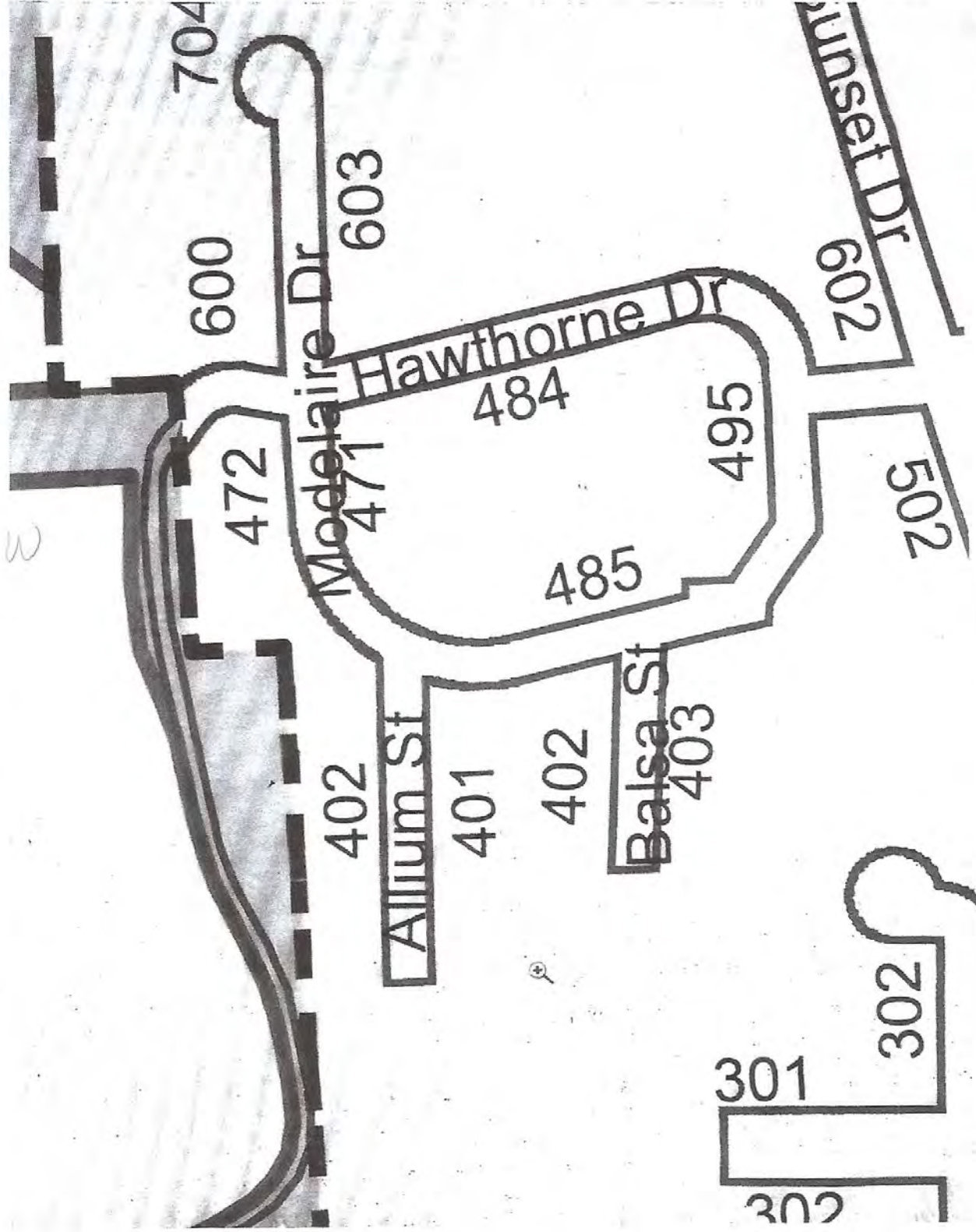


Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Exhibit 4

Idaho Power Responses to Comments and Requests for Additional Information on the B2H ApASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i> <i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASC Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i> <i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i> <i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i> <i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i>
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Exhibit 5

103

IV. CONCLUSIONS

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106

107

V. ORDER AND CONDITIONS OF APPROVAL

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118

119

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132

133

VI. OTHER PERMITS AND RESTRICTIONS

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.

145

146

Exhibit 6

7/25/2019

Gmail - Modelaire Roadway Specifications



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE

Public Works Director

City of La Grande

Public Works

Ph: (541) 962-1325

Fax: (541) 963-4844

2 attachments



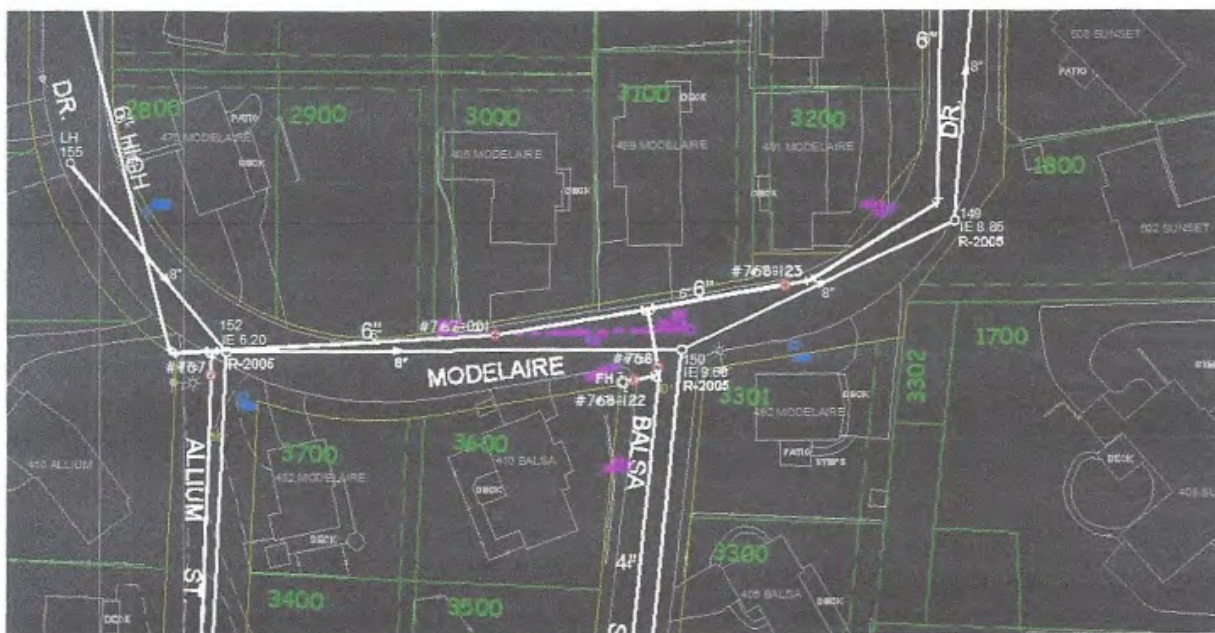
Hawthorne.jpg
150K

Modelaire.jpg
120K

7/25/2019

0 (1067x555)

Exhibit 7



7/25/2019

0 (1397x451)

Exhibit 8



Exhibit 9

attachment U2

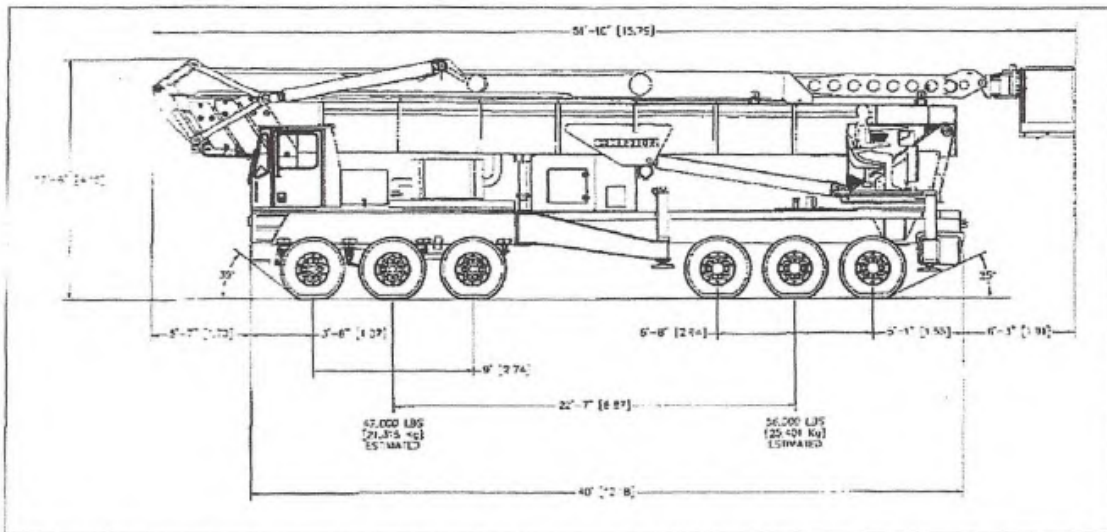


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

Exhibit 10

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

Exhibit 11

City of La Grande Ordinance Number 3242,
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ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Exhibit 12

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

Exhibit 13

7/24/2019

Roadway Design Manual: Minimum Designs for Truck and Bus Turns

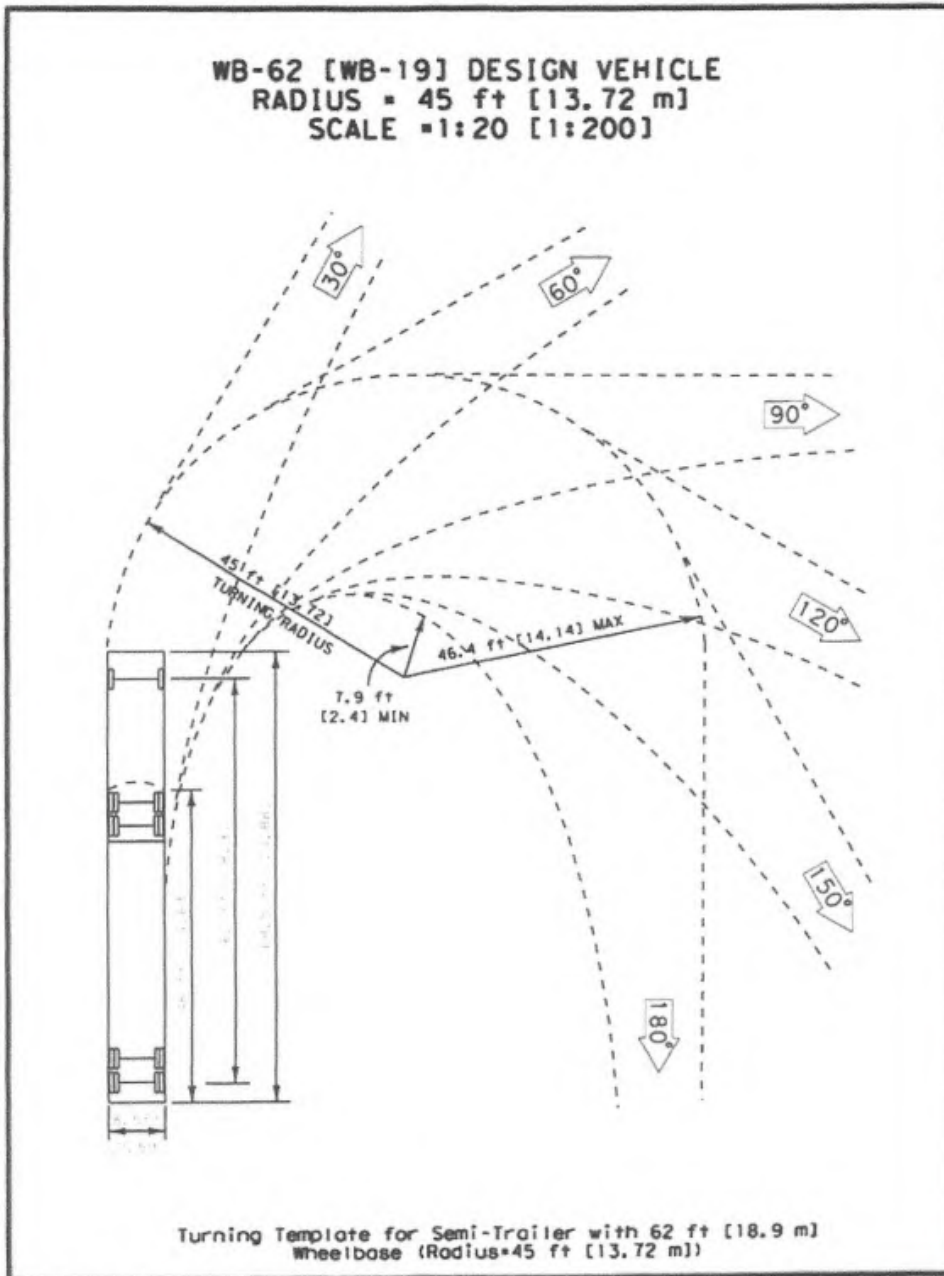


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

7/24/2019

7-1.png (596x805)

Exhibit 14

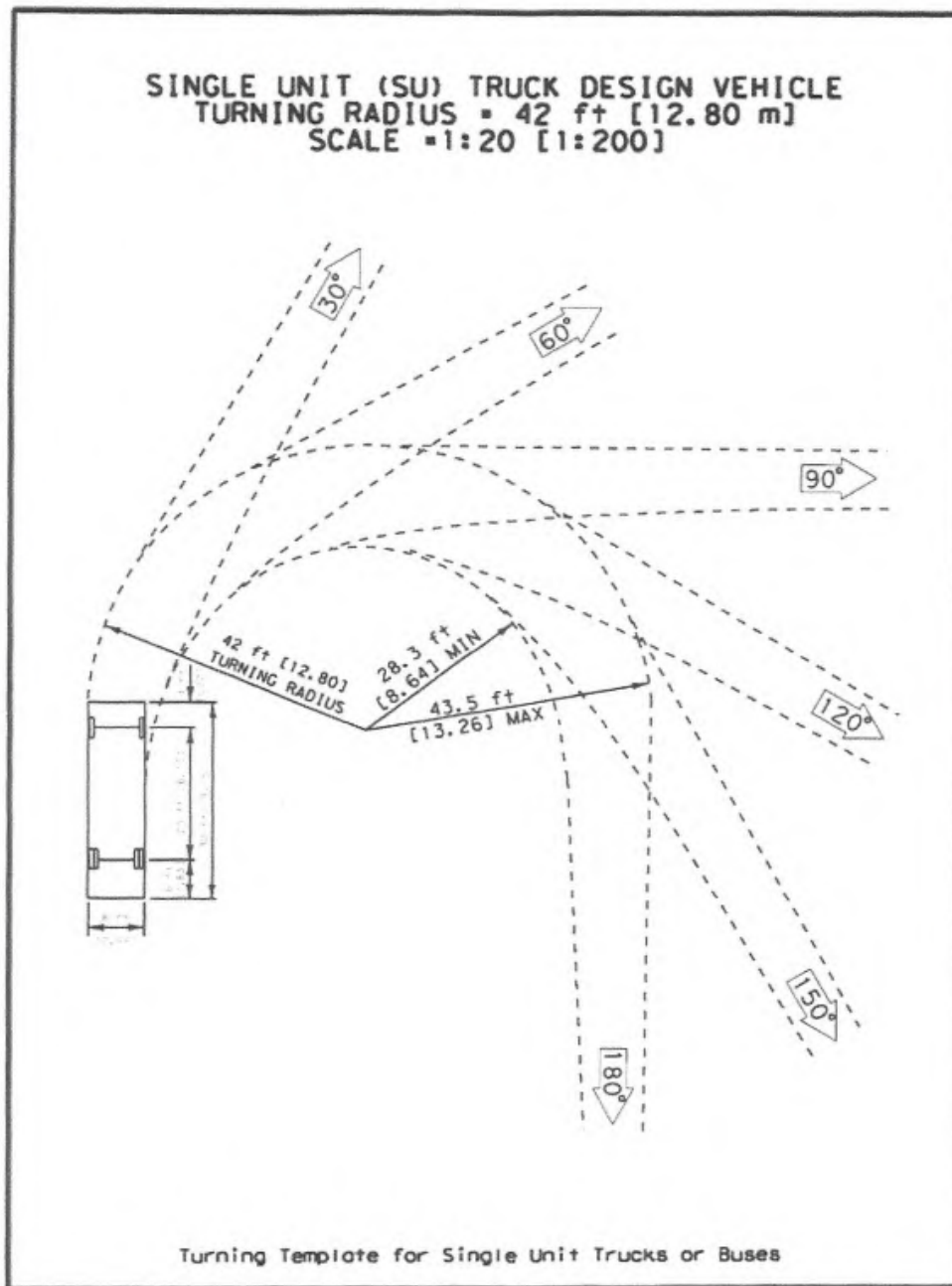


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

Exhibit 16

ORDINANCE NUMBER 3077
SERIES 2009
Page (8)

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

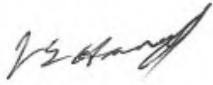
Section 17. TRUCK ROUTES

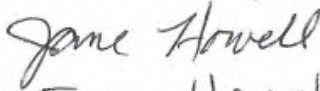
- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

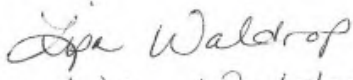
Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

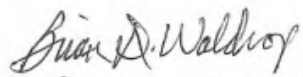
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

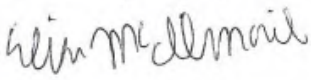
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SIGNATURE 
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EMAIL bdwaldrop58@gmail.com

SIGNATURE 
PRINTED NAME EUSE McILMAIL
ADDRESS 476 MODELAIRES DR.
EMAIL mcilmail154@hotmail.com


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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell
472 Modelaire Dr. LaGrande OR 97850

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

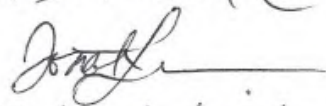

C. Huxell
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CHRIS Huxell @ EMAIL.COM

SIGNATURE

PRINTED NAME

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Jonah Lindeman
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SIGNATURE

PRINTED NAME

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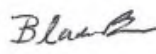

Marie Skinner
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marieskinner@hotmail.com

SIGNATURE


PRINTED NAME

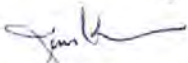
ADDRESS

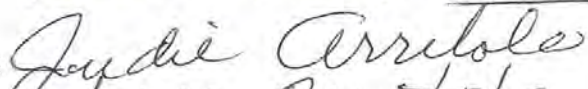
EMAIL

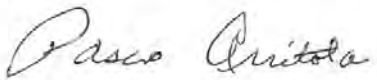

Blake Bars
1101 G Ave La Grande
blakebars@gmail.com

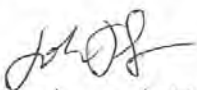
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SIGNATURE 
PRINTED NAME D. Dale Mammen
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EMAIL d mammen @ coni. com


SIGNATURE 
PRINTED NAME Jim Kreider
ADDRESS 6036 Marvin Rd
La Grande, OR 97850
EMAIL jkreider@campblackdog.org

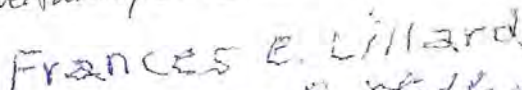
SIGNATURE 
PRINTED NAME Judie Arritola
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SIGNATURE 
PRINTED NAME Pasco Arritola
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EMAIL Pstola@charter.net


SIGNATURE 
PRINTED NAME John Bazuta
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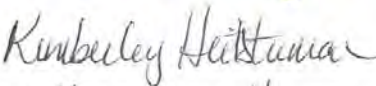
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SIGNATURE 
PRINTED NAME Andrea Galzow
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SIGNATURE 
PRINTED NAME Frances E. Lillard
ADDRESS 477 Madelaine Dr. L.G.
EMAIL

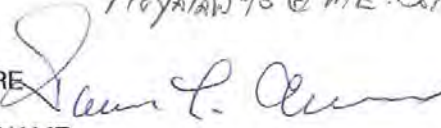
SIGNATURE 
PRINTED NAME Brent H. Smith
ADDRESS 410 Allium St
EMAIL smithbrent@gmail.com

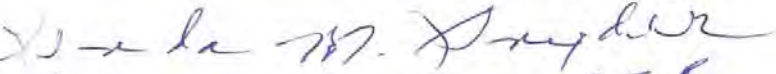
SIGNATURE 
PRINTED NAME M. Jeannette Smith
ADDRESS 410 Allium Street
EMAIL jeannetterampton@gmail.com

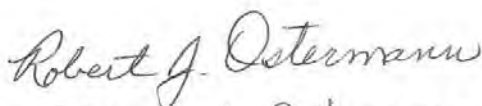
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
ADDRESS 2409 CENTURY LP, LA GRANDE, OR 97850
EMAIL kimheitstuman@hotmail.com


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SIGNATURE: 
PRINTED NAME Shawn K. Mangum
ADDRESS 2909 E. M. Ave,
EMAIL HoyalaW95@ME.com


SIGNATURE 
PRINTED NAME
ADDRESS Dennis L. ALLEN #41- 9637720
410 Balsa Street LaGrande, Oregon 97858
EMAIL N/A

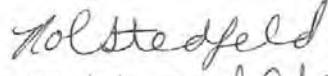
SIGNATURE 
PRINTED NAME Linda Snyder
ADDRESS 491 Modelaire
EMAIL

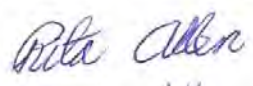
SIGNATURE 
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

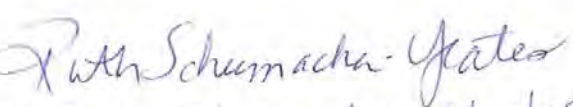
SIGNATURE 
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
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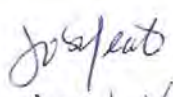
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SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Modelaire Dr
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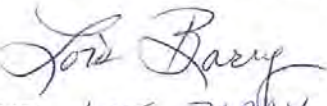
SIGNATURE 
PRINTED NAME Robin Stedfeld
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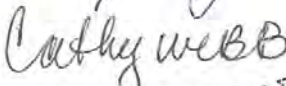
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

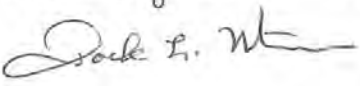
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
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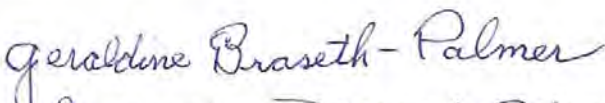

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
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SIGNATURE 
PRINTED NAME Lois BARRY
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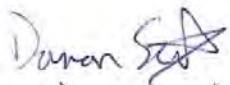
SIGNATURE 
PRINTED NAME CATHY WEBB
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EMAIL hunkski@gmail.com


SIGNATURE 
PRINTED NAME Jack L. Martin
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EMAIL Buff Martin 27 @GMail .com

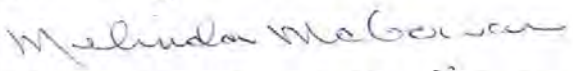
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
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SIGNATURE 
PRINTED NAME Jean BAPH
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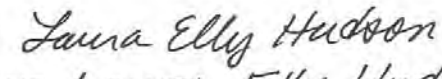
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SIGNATURE 
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SIGNATURE 
PRINTED NAME Cory Sexton
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SIGNATURE 
PRINTED NAME Melinda McGowan
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PRINTED NAME Laura Elly Hudson
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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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SIGNATURE *Robert J. Sherer*
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SIGNATURE *Heather M. Null*
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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
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SIGNATURE *Robin L. Maille*
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SIGNATURE *Bruce C Kevan*
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SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
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SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
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EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
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EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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PRINTED NAME
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EMAIL

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PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

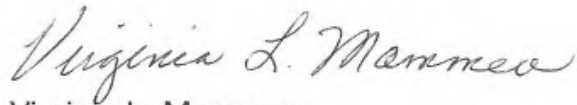
In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰ These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable.¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

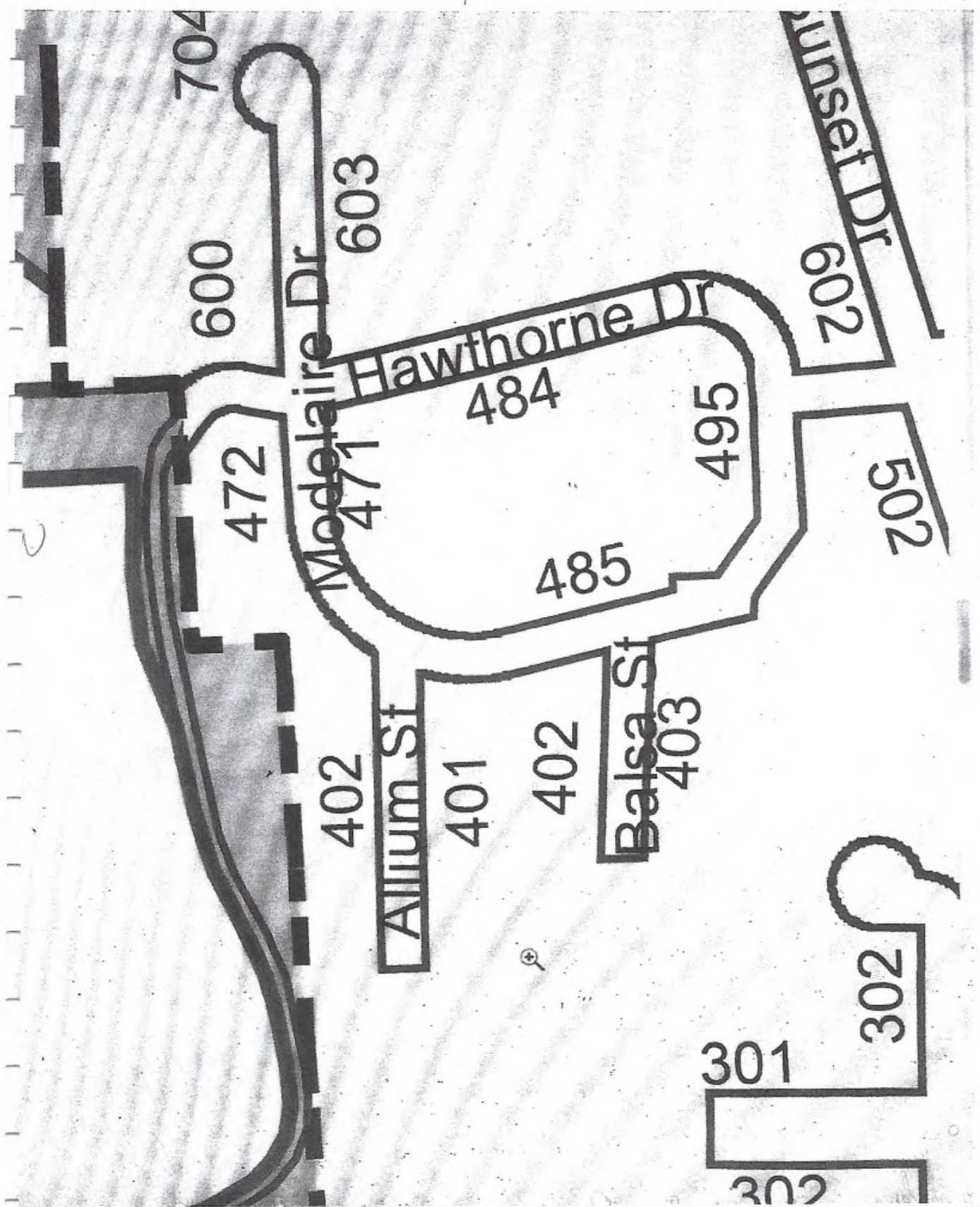
Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1



N

2

11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

1 **3.3 Predicted Noise Levels**

2 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
3 of the proposed facility.

4 **3.3.1 Construction Noise**

5 **3.3.1.1 Predicted Construction Noise Levels**

6 Project construction will occur sequentially, moving along the length of the Project route, or in
7 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
8 maintenance areas. Overhead transmission line construction is typically completed in the
9 following stages, but various construction activities may overlap, with multiple construction
10 crews operating simultaneously:

- 11 • Site access and preparation
- 12 • Installation of structure foundations
- 13 • Erecting of support structures
- 14 • Stringing of conductors, shield wire, and fiber-optic ground wire

15 The following subsections discuss certain construction activities that will periodically generate
16 audible noise, including blasting and rock breaking, implosive devices used during conductor
17 stringing, helicopter operations, and vehicle traffic.

18 **Blasting and Rock Breaking**

19 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
20 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
21 Modern blasting techniques include the electronically controlled ignition of multiple small-
22 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
23 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
24 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

34 **Implosive Devices**

35 An implosive conductor splice consists of a split-second detonation with sound and flash.
36 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
37 developed by an individual certified and licensed to perform the work. The plan will
38 communicate all safety and technical requirements including, but not limited to, delineation of
39 the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



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Oregon Secretary of State Administrative Rules

Exhibit 4a

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

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Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

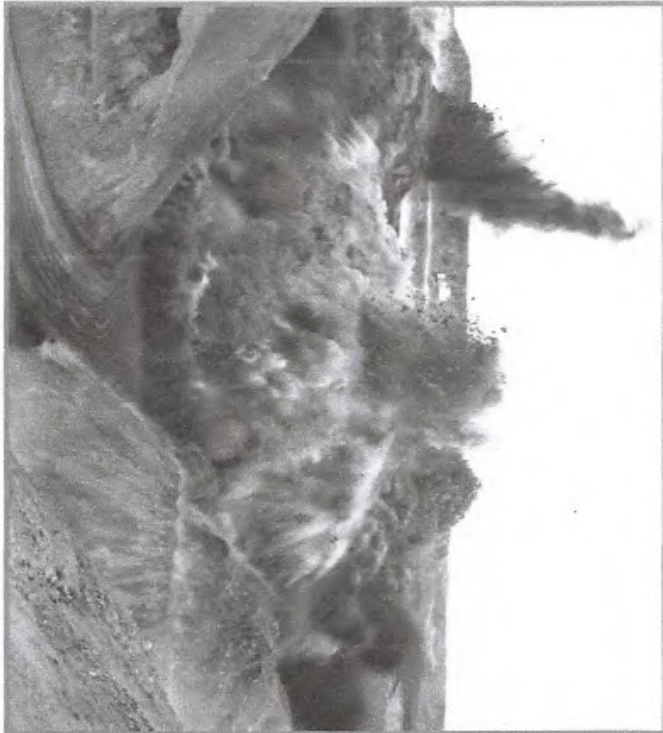
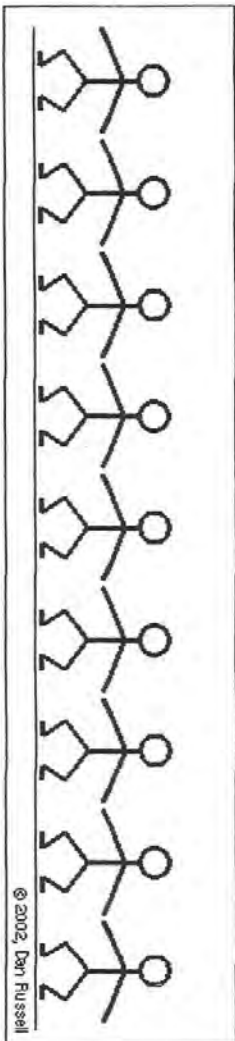


Exhibit 5b

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

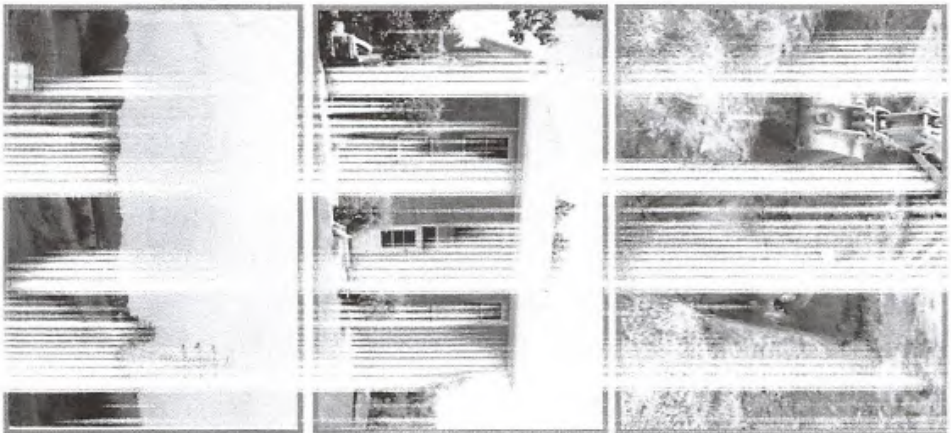
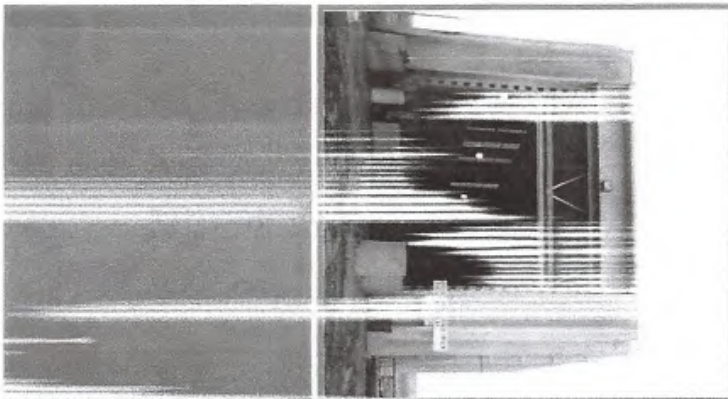
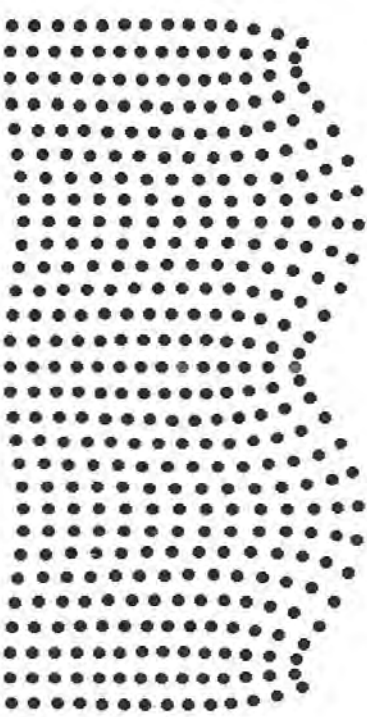


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



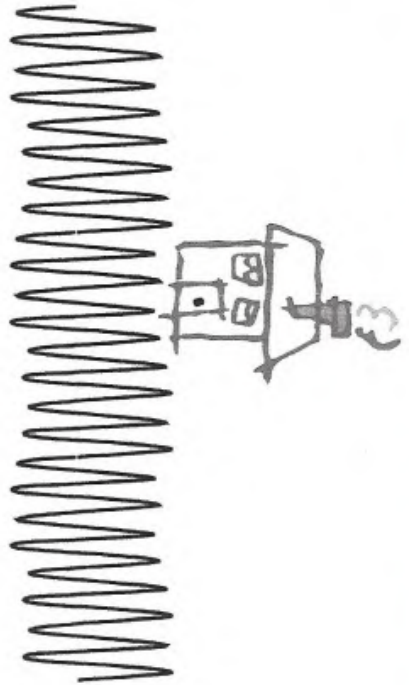
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Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.

High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.



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A noisy problem - Harvard Health

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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

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Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



Exhibit 8b

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Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with "clinically significant sleep loss among hospitalized patients," perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB - nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with "a mean maximum sound level of 69.7 dB" (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: "Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients" (Garcia, 2012). "Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects," they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO's 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants "are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise" (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Exhibit 3

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Around the country, "quiet campaigns" have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as "one of the nation's largest hospital construction projects," Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed "to encourage quietness," according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including "Quiet Hospital" badges on staff and posters at the entrance of every unit, a "Quiet at Night" campaign (9 p.m. – 6 a.m.), and a "Quiet Champions" program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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8/6/2019

<https://knops.co/magazine/noise-and-ptsd/>

Exhibit 9
a



Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the

Exhibit 9b

8/6/2010

trauma or flashbacks.



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

Exhibit 10a



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PMCID: PMC3757288

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

8/4/2019

Does noise affect learning? A short review on noise effects on cognitive performance in children

EXHIBIT 10/12

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

8/4/2018



Walk Donate Q

Exhibit 11a

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

8/4/2011

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Pages

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)

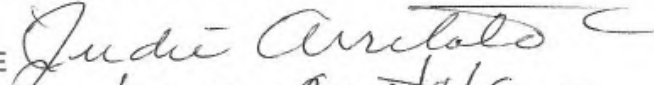


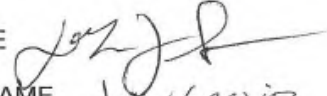
SCIENCE
NEWS


EXPERT
OPINION

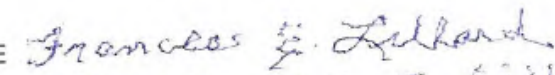
[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)


I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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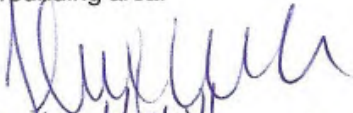
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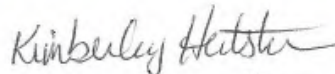
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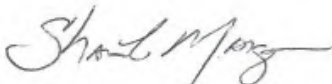
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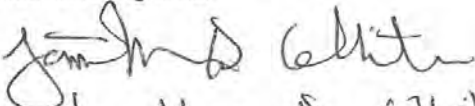
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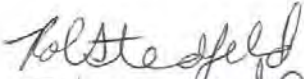
2409 E. M. Ave.

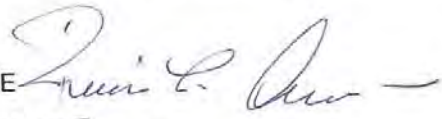
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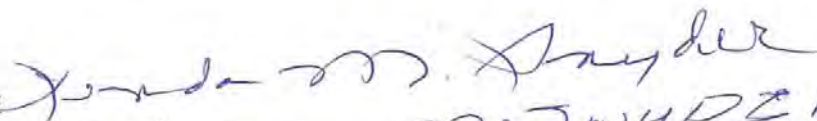
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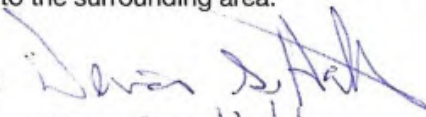
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SIGNATURE



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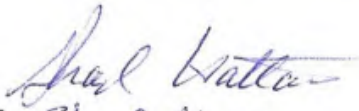
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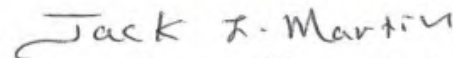
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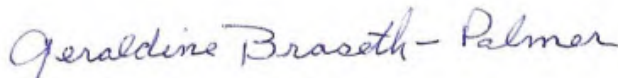
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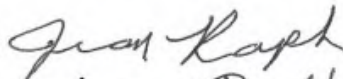
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ESTERSON Sarah * ODOE

From: Anne March <amarch@eoni.com>
Sent: Thursday, August 22, 2019 6:17 AM
To: B2H DPOComments * ODOE
Subject: RE: B2H and Anadromous Fish in Ladd Creek, Union County
Attachments: March letter #1 (Fish).docx; Ladd Creek Fish Passage Project.ppt

Please find attached the following:

- my letter in opposition of the B2H proposed project, which raises questions about a violation of the Endangered Species Act

- a slideshow, produced by the Oregon Department of Transportation, which is referred to in my letter. It's a big file, so I decided to send it as a separate document.

Thank you,

Kevin March
La Grande, OR

August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Sent Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Anadromous Fish in Ladd Creek, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

As a very concerned citizen in regards to the Boardman to Hemingway Transmission Line Project, I am writing this letter to inform you that the proposed routes through the Ladd Canyon watershed in Oregon are in violation of the Endangered Species Act.

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. Specifically, I am protesting as a concerned citizen regarding the B2H Draft Proposed Order, the Final Environmental Impact Statement, and the project's plan regarding wild and threatened fish.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see attached Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

The Oregon Department of Fish and Wildlife's Mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The department is the only state agency charged exclusively with protecting Oregon's fish and wildlife resources. The state Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources.

The B2H Draft Proposed Order (page 9-10 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*), states that Ladd Creek and its tributaries contain only local fish (trout), but **that status has changed** due to major culvert work along and under the I-84 interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see

<https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction has resulted in costs over 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and attached ([PPT] Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species (ESA). The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

The B2H Draft Proposed Order contains the following outdated information:

1. In *Table 1. Road-Stream Crossing Ownership, Risk Summaries, Proposed Crossing Types, and Fish Passage Information* Idaho Power names 5 waters in the Ladd Creek area (page 9-11 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*) with stream crossings. The report states that the only fish in these waters are resident fish. This information is now incorrect.
2. The B2H Draft Proposed Order states that for all of Ladd Creek and its tributary streams that "No new ODFW fish plan anticipated." (page 9-11 of Attachment BB-2). It cannot be overemphasized that this information is now incorrect.
3. The alternative route Idaho Power has chosen will necessitate a 3a/3b (page 11 BB-2) design change for a bridge crossing on Ladd Creek if this route is chosen, this will trigger an ODFW fish passage plan to be implemented (OAR 17 412-0035) based on Oregon Administrative Rules (OAR) 635-412-0020. Again, the B2H Draft Proposed Order information is now incorrect.

Because of the change of status of the fish population in Ladd Creek, the B2H Draft Proposed Order is out of compliance with several Federal and State laws including:

1. ORS 509.580 through 509.910: *Fish Passage; Fishways; Screening Devices; Hatcheries Near Dams*
2. OAR 635-41-0005 through 635-412-0040: *Fish Passage*
3. *Oregon Forest Practice Administrative Rules and Forest Practices Act, OAR Chapter 629 (ODF 2014)*
4. *Forest Practices Technical Note Number 4, Fish Passage Guidelines for New and Replacement Structures (ODF 2002)*
5. *Fish and Wildlife Mitigation Policy (OAR 635-415-0000), which states that :*

- (a) The mitigation goal if impacts are unavoidable, is no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality.
- (b) The Department shall act to achieve the mitigation goal for Category 2 habitat by recommending or requiring:
 - (A) Avoidance of impacts through alternatives to the proposed development action; or
 - (B) Mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality. In addition, a net benefit of habitat quantity or quality must be provided. Progress towards achieving the mitigation goals and standards shall be reported on a schedule agreed to in the mitigation plan performance measures. The fish and wildlife mitigation measures shall be implemented and completed either prior to or concurrent with the development action.
- (c) If neither 635-415-0025(2)(b)(A) or (B) can be achieved, the Department shall recommend against or shall not authorize the proposed development action.

In conclusion, the B2H Draft Proposed Order contains an improper evaluation of the potential short and long term negative impacts to the fish habitat in the Ladd Creek drainage, including surrounding creeks, given the fact that species listed as threatened under the Endangered Species Act are now returning to Ladd Creek, with their numbers expected to increase in upcoming months and years.

Sincerely,

Kevin March
206 Main Avenue
La Grande, OR 97850
amarch@eoni.com
(541) 962-5726

Ladd Creek Fish Passage Project



The Problem



The Problem- Fish Passage

- **Ladd Creek, a tributary of Catherine Creek, contains SRB steelhead, listed as threatened under the state and federal ESA. Chinook salmon historically spawned in Ladd Creek.**
- **Construction of I-84 through Ladd Canyon in the 1970's resulted in complete blockage of fish passage for all species at all flows as a result of a 20-foot vertical culvert. 12-14 miles of spawning habitat was blocked.**
- **Two additional concrete box culverts lower in the canyon are partial passage barriers**
- **Culvert under Brush Creek is structurally deficient and at risk of failing**

20-foot Vertical Culvert



20-foot Vertical Culvert



Vertical Culvert Outlet (3rd crossing)



Ladd Cr. (3rd Crossing)
BR# 07285A
Hwy 6 I-84 MP 270.89

Lt. Side - Outlet
7/3/01

2nd Crossing under I-84



1st Crossing under I-84



Ladd Cr. (1st Crossing)
BR# 07283A
Hwy 6 I-84 MP 270.05

Lt. Side - Outlet
7/3/01

These three crossings are currently undersized and two have excessive jump heights



Steelhead & Chinook Salmon Recovery

- **From Page 5-29, 5-66, 7-45 of the 2010 Northeast Oregon Snake River Draft Recovery Plan:**
- **Roads (I-84) are listed as a primary threat limiting this steelhead population.**
- **This project would address fish passage and habitat access, listed as a primary limiting factors for this steelhead population.**
- **Replacing culverts on Ladd Creek is listed as a recommended recovery action under this Recovery Plan to restore passage and connectivity and improve habitat access for steelhead and Chinook salmon.**

Chinook Salmon Recovery

- **From Pages 5-27 – 5-29 of the 2010 Northeast Oregon Snake River Draft Recovery Plan:**
- **Historically, spring Chinook spawned in Ladd Creek.**
- **Ladd Creek is an identified MiSa (minor spawning area) and although currently not occupied, Ladd Creek has high intrinsic spawning potential for Chinook salmon (Carmichael et al. 2006).**
- **Much of the Chinook spawning for the Catherine Creek Chinook Population historically occurred high in the watershed on public lands (areas blocked by ODOT's Vertical Culvert on Ladd Creek)**

Chinook Salmon Recovery

- **From Pages 5-27 – 5-29 of the 2010 Northeast Oregon Snake River Draft Recovery Plan:**

Primary Threats and Limiting Factors

- Roads (I-84) are listed as a primary threat limiting this spring Chinook population.**
- Primary Limiting Factors for this population include: Poor fish passage, low pool frequency, lack of diversity, substandard bank conditions, degraded riparian conditions.**
- Completion of this project would address the above limiting factors by improving fish passage and allowing Chinook access to historic spawning areas that habitat surveys have shown have high pool frequency, large woody debris, habitat diversity and complexity, vegetated streambanks, and are in good riparian condition.**

Chinook & Steelhead Recovery



Intrinsic Potential of Upper Ladd Creek

	Habitat Survey Results Above the Vertical Culvert	Habitat Survey Results Below the Vertical Culvert	Matrix of Pathways and Indicators- NMFS (ideal habitat conditions for listed salmonids)
Large Woody Debris	226 pieces/mile	35 pieces/mile	>20 pieces/mile
Number of Pools	80.5 pools/mile	33.5 pools/mile	70 pools/mile
Substrate embeddedness	<5%	2.5	<20%
Bankfull width/depth	8.83	11.59	<10

Intrinsic Potential of Upper Ladd Creek

- **As a result of surveys conducted from 1994–1996 by ODF, ODFW, and USFS, 12 to 14 miles of potential steelhead and Chinook rearing and spawning habitat occurs above the vertical culvert.**
- **Results of the surveys demonstrated that *O. mykiss*, resident rainbow trout, ranging in 3 – 10 inch in length, were observed throughout upper Ladd Creek, Smoot's Creek, and Shaw Creek. Clean-up of a tanker spill in Brush Creek, demonstrated that *O. mykiss* occupy Brush Creek as well.**

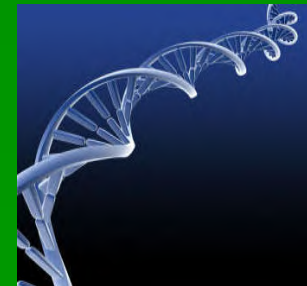
Intrinsic Potential of Upper Ladd Creek

- **Current resident rainbow distribution is being used as a surrogate for potential steelhead distribution based on:**

a) The strong genetic similarity between resident rainbow trout and steelhead trout in every case they have been examined indicates that, in general, the two forms are genetically linked on evolutionary time frames (Good et al. 2005).

b) Genetic studies have shown that resident and anadromous *O. mykiss* in the same basin are more genetically similar to each other than either is to the same form in another basin (Good et al. 2005).

c) The Deschutes River Study (Zimmerman and Reeves 2000) examined a population in British Columbia, where anadromous fish gave rise to resident offspring, and resident fish gave rise to anadromous offspring.



Intrinsic Potential of Upper Ladd Creek



**Lot's of large wood,
overstory cover, and
meanders**

Intrinsic Potential of Upper Ladd Creek



**Stable
Streambanks**

**Spawning
gravel at the
tail-out of a
pool=
spawning
habitat**

Intrinsic Potential of Upper Ladd Creek



**Deep
holding
pools**

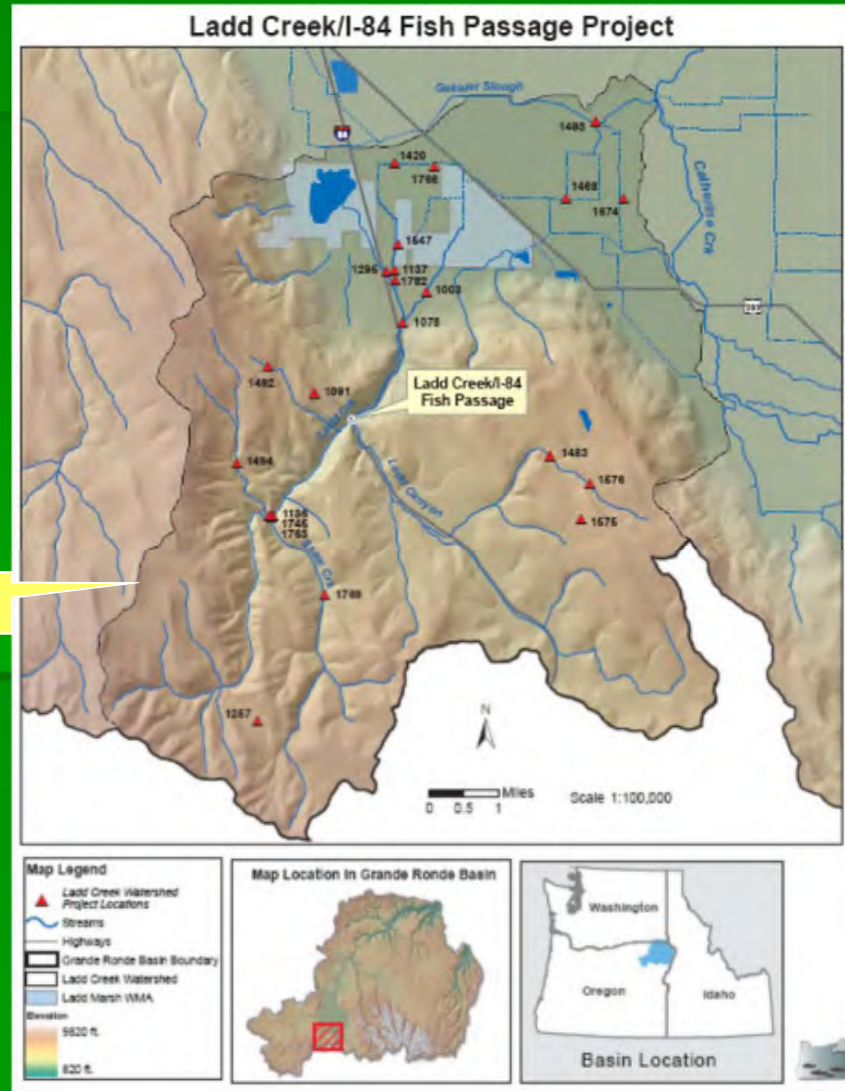
Poor Habitat below the Ladd Canyon Culverts

- **Habitat survey results show that lower Ladd Creek has extremely limited shade, spawning substrate, cover, LWD, and overall habitat complexity.**
- **Ladd Creek splits into three channels downstream of the Ladd Canyon Culverts, two of which have barriers and one of the two split channels does not connect with Catherine Creek (trib. of the Grande Ronde River)**
- **Steelhead and Chinook have been blocked from the primary spawning grounds of Upper Ladd Creek since freeway construction in the 1970s.**
- **It only takes blocking spawning access of five brood years to extirpate a population.**
- **Lower Ladd Creek is used as rearing habitat for steelhead, Chinook, and bull trout juveniles**
- **Out-planting of Catherine Creek adult steelhead, Chinook, and bull trout by ODFW/Tribes may be necessary to jump start a run**



Intrinsic Potential of Upper Ladd Creek

Past enhancements



The Problem- Traffic Safety

**Bottleneck of
truck traffic in
Ladd Canyon,
third lane
needed**



The Alternatives

- Replace culverts 1 & 2 under I-84 with embedded concrete boxes and...
- 1) Remove the west-bound on ramp, bring Ladd Creek to grade, and install a roughened shoot under the existing I-84 bridge.



The Alternatives

2) Slope cutback/culvert under I-84



The Alternatives

3) Bring Ladd Creek to grade and place a culvert under I-84



Agency Support

- **ODFW**-Project resides on the Statewide Priority List of fish passage barriers in the state. ODOT has received letter of support from the ODFW Northeast Region Manager
- **Union County Board of Commissioners** has given a letter of support for this project.
- **The Grande Ronde Model Watershed** has given a letter of support for this project.
- **The US Army Corps of Engineers** is supportive of this project and would like to assist with funding.
- **Jeff Merkley of the United States Senate** has written a letter of support for this project.
- **Ron Wyden of the United States Senate** has written a letter of support for this project.
- **NMFS** have agreed to write a letter of support for this project.

The End



Literature Cited

Carmichael, R.W. et al. Oregon Department of Fish and Wildlife (ODFW). 2006. Draft Grande Ronde-Imnaha Spring/Summer Chinook Major Population Grouping Viability Assessments.

Good, T. P., R.S. Waples, and P. Adams (editors). 2005. Updated Status of Federally Listed ESUs of West Coast Salmon and Steelhead West Coast Salmon Biological Review Team. U.S. Department of Commerce, NOAA Technical Memorandum, NMFS-NWFSC-66, 598 p.

NMFS (National Marine Fisheries Service). 2010. Draft Recovery Plan for Oregon Spring/Summer Chinook Salmon and Steelhead Populations in the Snake River Chinook Salmon Evolutionarily Significant Unit and Snake River Steelhead Distinct Population Segment. November 18. Northwest Region.

NMFS (National Marine Fisheries Service). 1996. Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale. Matrix of Pathways and Indicators. Environmental and Technical Services Division. Habitat Conservation Branch.

Zimmerman and Reeves. 2000. Population Structure of sympatric anadromous and nonanadromous *Oncorhynchus mykiss*: evidence from spawning surveys and otolith microchemistry.

ESTERSON Sarah * ODOE

From: Anne March <amarch@eoni.com>
Sent: Thursday, August 22, 2019 6:25 AM
To: B2H DPOComments * ODOE
Cc: Kevin and Anne March
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

August 20, 2019

Energy Facilities Siting Council

c/o Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St, N.E.

Salem, OR 97301

Sent Via email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Endangered Fish in Ladd Creek and Tributaries, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. As a citizen of La Grande who cares deeply about our local watersheds, I have found, while searching through the Draft Proposed Order, that the project plans are in violation of the Endangered Species Act. Idaho Power's B2H DPO is not in compliance with State or Federal Protected Species laws.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see attached Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

The Oregon Department of Fish and Wildlife's mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The department is the only state agency charged exclusively with protecting Oregon's fish and wildlife resources. The state Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources.

The B2H Draft Proposed Order (pages 9-10 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*), states that Ladd Creek and its tributaries contain only local fish (trout), but that status has changed due to major culvert work along and under the I-84 interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see <https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction projects have resulted in costs above 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and attached ([PPT]Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species. The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

Idaho Power has two proposed line routes across and through Ladd Canyon, a preferred and an alternative. Idaho power has also stated that because there are only resident fish in Ladd Creek, that "No new fish passage plan anticipated" (page 9-11 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*).

Because the alternative route through Ladd Canyon would necessitate a 3a/3b design change for a bridge crossing on Ladd Creek and there are threatened anadromous fish in Ladd Creek, an ODFW fish passage plan will need to be implemented (*OAR 17 412-0035*) based on (*OAR 635-412-0020*) for this route for Ladd Creek and its tributaries.

In conclusion, the B2H DPO contains improper evaluation of the potential long term negative impacts on fish habitat in the Ladd Creek drainage, including tributaries. The Endangered Species Act requires identification and evaluation of effects of the proposed action through ESA section 7(a)(2) consultation with NMFS (anadromous fish species). Federally protected anadromous species are currently present in Ladd Creek, and its tributaries.

Idaho Power's B2H DPO is not in compliance with State or Federal Protected Species laws. The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080. Therefore, issuance of a Site Certificate should be denied.

Sincerely,

Anne March

206 Main Avenue

La Grande, OR 97850

amarch@eoni.com

(541) 786-0802

ESTERSON Sarah * ODOE

From: Anne March <amarch@eoni.com>
Sent: Thursday, August 22, 2019 6:40 AM
To: B2H DPOComments * ODOE
Cc: Kevin and Anne March
Subject: CONCERNS DUE TO THE INCREASED RISK AND LACK OF RESPONSE CAPABILITIES IN THE EVENT OF A FIRE ALONG THE TRANSMISSION LINE

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

RE: CONCERNS DUE TO THE INCREASED RISK AND LACK OF RESPONSE
CAPABILITIES IN THE EVENT OF A FIRE ALONG THE TRANSMISSION LINE

As a citizen who deeply cares about the wild lands in Union County, I am writing to you in protest of the proposed B2H project and specifically about the lack of realistic planning regarding wildfire risk addressed in the Draft Proposed Order.

The increased potential for wildfire has been established as a given along any transmission line. Not only is there an undetermined and potentially significant amount of time that will elapse prior to the identification of the fire, but then there may be a response time of up to 40 minutes after a fire is located in some areas according to fire fighting resources. There will be ample opportunity for the fire to grow significantly. Given the potential lack of speed in getting to the location, the difficulty traversing the terrain, and the lack of specialized equipment available to fight forest fires, local resources are not adequate to protect the public from wildfires occurring due to the construction and ongoing operation and maintenance of this transmission line. Responding to fires that do occur will limit local resources available to provide service to their local areas of responsibility and the developer is planning to rely upon those local resources to deal with fires along the transmission corridor. Concern over the increased risk of fire as a result of this transmission line including multiple comments voiced by the citizens of the counties as well as special advisory groups prompted both Union and Baker counties to request funding for an analysis and recommendation to identify and mitigate the increased risk created by the construction and operation of the transmission line. Funding for that activity is not being supported by the developer.

This development will have a significant impact on the local service providers to provide protection and respond to fires. There would be construction occurring during the hot, dry summer, that they will be establishing Right of Ways with abundant low lying, heavy brush and grass which burns fast and hot. There are long distances along the entire length of the transmission line with no designated fire response unit, the employees building and maintaining the transmission line are not going to be qualified to fight fires they create, there is a lack of specialized equipment needed to fight transmission line caused fires, response times will be excessive, there is a lack of paid personnel available to deal with these remote fires, some fire stations have old equipment, and they will be creating hundreds of miles of new and improved roads to allow and increase access for human caused fires. According to the Forest Service, between 88% and 90% of wildfires are human caused. There

will be a significant increase in access for both people and vehicles along the entire right of way for the life of the transmission line. For example, Union County identified the following needs if the developer is going to rely upon local fire protection resources:

--Each volunteer firefighter needs to be provided with a phone and GPS system utilizing current technology able to provide service in remote areas along the transmission line

--There is a need for two heavy duty all terrain water trucks and any additional equipment needs identified by the Fire Chief.

--An additional full time position with the County fire department during any construction occurring in Union County.

--A permanent ½ time position to provide monitoring, training and firefighting during the life of the development.

--The county needs to participate in the development of a fire plan prior to it being accepted

--There is a need to provide resources to assure a response time of 14 minutes or less 90% of the time as required by NFPA.

A matter that adds significantly to the risk is the fact that the developer is stating they will rely upon Rural Fire Protection Services to respond and fight fires along the transmission line.

These fire departments are only authorized to fight structural fires.

I hope you take these comments seriously, as the risk of catastrophic fires in the areas being

impacted by the Boardman to Hemingway Transmission line are high. No acceptance of

Condition Number 6 should be given until the developer has shown that they are dealing with the increased fire potential they are creating through this development.

Sincerely,

Anne March
206 Main Avenue
La Grande, OR 97850
amarch@eoni.com
541.786.0802

ESTERSON Sarah * ODOE

From: Anne March <amarch@eoni.com>
Sent: Thursday, August 22, 2019 6:48 AM
To: B2H DPOComments * ODOE
Cc: Kevin and Anne March
Subject: Letter in opposition to B2H: Wildlife and Weed Management Concerns

August 20, 2019

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE

Salem, Oregon 97301

email: B2H.DPOComments@Oregon.gov

COMMENT: The Section K, Attachment K-2 FOREST LAND IMPACTS

This section is grossly inadequate and inaccurate. For example:

1. The application provides no information regarding the wildlife present in the forested areas and indicates an intent to obtain information from the Oregon Department of Forestry or USFS. The agency which should be addressing these impacts is the Oregon Department of Fish and Wildlife and the US Fish and Wildlife Service.
2. No surveys have been completed as part of the application to indicate the actual extent of the wildlife present in the forested areas.
3. The wildlife surveys completed for the Antelope Ridge Wind development which was to be sited adjacent to this proposed transmission line found 75 different bird species nesting in the forested areas. The numbers of birds was so high that the US Fish and Wildlife Service recommended no development in the forested areas. The Baseline Noise Surveys, page 10, describe the route of the transmission line to be adjacent to the 230 KV line adjacent to the Elkhorn Wind Development. For this reason, the wildlife information and studies completed as a result of the Elkhorn and Antelope Ridge Wind Developments are relevant to and should be analyzed in terms of impacts to wildlife which can be expected from the transmission line. Comments, recommendations and concerns documented in comments regarding these two developments are directly related to the area of impact of this transmission line.
4. The creation of a corridor through the middle of forest land is stated as a benefit to wildlife. There are multiple studies showing the negative impacts of creating corridors such as this as it provides opportunities for raptors and other predators to access prey. This should be widely known by the developers given the concerns they are required to address to attempt to minimize the use of transmission structures by raptors and other birds.

The entire section on Forested Land Analysis needs to be rewritten to accurately reflect the true impacts of this development including negative impacts to adjacent land and adjacent landowners such as impacts from the use of chemicals to control vegetation, erosion from development of the transmission line and roads, transmission lines are identified in multiple studies as

a primary source of invasive weeds and it appears from this section that the developer plans to only spray for weeds a couple of times a year. That will assure that there will be multiple problems with invasive weeds as a result of this transmission line.

Sincerely,

Anne March

206 Main Avenue

La Grande, OR 97850

amarch@eoni.com

541-786-0802

ESTERSON Sarah * ODOE

From: Kevin March <amarch@eoni.com>
Sent: Thursday, August 22, 2019 6:59 AM
To: B2H DPOComments * ODOE
Subject: B2H and Endangered Species

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

Being a longtime resident and fisherman residing in La Grande, I am extremely unhappy with the proposed B2H project and its paying lip service to the Endangered Species Act.

Specifically, the applicant has failed to acknowledge the presence of a Federal and State-listed Threatened species, and has failed to identify Category-1, Critical Habitat.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species, also listed as Threatened by USFWS. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation. The applicant has failed to comply with these requirements!

The Grande Ronde river watershed contains a well-documented population of Bull Trout. By statute, wherever a portion of a watershed contains a Threatened or Endangered species, the entire watershed is under federal protection. The Grande Ronde river watershed encompasses the entirety of Union county, and the majority of Wallowa county. As evaluated in the DPO, ASC Exhibit P, suitable habitat used by state-listed Threatened and Endangered species is designated pursuant to ODFW's Habitat Mitigation Policy, and EFSC's Fish and Wildlife Habitat standards, as Category-1 Habitat, where any impact, direct or indirect is prohibited. There is NO mitigation for Category-1 Habitat!

The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited, the magnitude of impact becomes irrelevant.

The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, as noted above.

In view of the fact that recovery of the Bull Trout population sufficient to remove its Threatened status is reliably estimated to be a matter of decades, issuance of a Site Certificate should be denied, with prejudice!

Thank you.

Kevin March
206 Main Ave.
La Grande OR 97850
541 962 5726
kmarch1961@gmail.com

ESTERSON Sarah * ODOE

From: Lauren March <laurenmarch4@gmail.com>
Sent: Wednesday, August 21, 2019 10:02 AM
To: B2H DPOComments * ODOE
Subject: B2H Fish Endangerment Comment

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Sent Via email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Endangered Fish in Ladd Creek and Tributaries, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. I request that my letter protesting issuance of an Oregon Site Certificate for the currently proposed Boardman-to-Hemingway Transmission Project (B2H Project) be entered into the permanent written record. I also request response to, and resolution of, the issues I raise herein.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers. This creek is used consistently as a place to source sustenance (for the hunters of the area) and as a way to recreate and relax for the communities of Eastern Oregon.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

The Oregon Department of Fish and Wildlife's mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The department is the only state agency charged exclusively with protecting Oregon's fish and wildlife resources. The state Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources.

The B2H Draft Proposed Order (pages 9-10 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*), states that Ladd Creek and its tributaries contain only local fish (trout), but that status has changed due to major culvert work along and under the I-84 interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see <https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction projects have resulted in costs above 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and attached ([PPT]Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species. The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

Idaho Power has two proposed line routes across and through Ladd Canyon, a preferred and an alternative. Idaho power has also stated that because there are only resident fish

in Ladd Creek, that “No new fish passage plan anticipated” (page 9-11 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*).

Because the alternative route through Ladd Canyon would necessitate a 3a/3b design change for a bridge crossing on Ladd Creek and there are threatened anadromous fish in Ladd Creek, an ODFW fish passage plan will need to be implemented(OAR 17 412-0035) based on (OAR) 635-412-0020 for this route for Ladd Creek and its tributaries.

In conclusion, the B2H DPO contains improper evaluation of the potential long term negative impacts on fish habitat in the Ladd Creek drainage, including tributaries. The Endangered Species Act requires identification and evaluation of effects of the proposed action through ESA section 7(a)(2) consultation with NMFS (anadromous fish species). Federally protected anadromous species are currently present in Ladd Creek, and its tributaries.

Idaho Power's B2H DPO is not in compliance with State or Federal Protected Species laws. The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080. Therefore, issuance of a Site Certificate should be denied.

Sincerely,

Lauren March
206 Main Avenue
La Grande, OR 97850
laurenmarch4@gmail.com
541-786-8690

ESTERSON Sarah * ODOE

From: Lauren March <laurenmarch4@gmail.com>
Sent: Wednesday, August 21, 2019 10:00 AM
To: B2H DPOComments * ODOE
Subject: B2H wildlife endangerment

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Sent Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Anadromous Fish in Ladd Creek, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. Specifically, I am protesting as a concerned citizen regarding the B2H Draft Proposed Order, the Final Environmental Impact Statement, and the project's plan regarding wild and threatened fish.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

The Oregon Department of Fish and Wildlife's Mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future

generations. The department is the only state agency charged exclusively with protecting Oregon's fish and wildlife resources. The state Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources.

The B2H Draft Proposed Order (page 9-10 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*), states that Ladd Creek and its tributaries contain only local fish (trout), but **that status has changed** due to major culvert work along and under the I-84 interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see <https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction has resulted in costs over 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and ([PPT] Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species (ESA). The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

The B2H Draft Proposed Order contains the following outdated information:

1. In *Table 1. Road-Stream Crossing Ownership, Risk Summaries, Proposed Crossing Types, and Fish Passage Information* Idaho Power names 5 waters in the Ladd Creek area (page 9-11 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*) with stream crossings. The

report states that the only fish in these waters are resident fish. This information is now incorrect.

2. The B2H Draft Proposed Order states that for all of Ladd Creek and its tributary streams that “No new ODFW fish plan anticipated.” (page 9-11 of Attachment BB-2). It cannot be overemphasized that this information is now incorrect.

3. The alternative route Idaho Power has chosen will necessitate a 3a/3b (page 11 BB-2) design change for a bridge crossing on Ladd Creek if this route is chosen, this will trigger an ODFW fish passage plan to be implemented (OAR 17 412-0035) based on Oregon Administrative Rules (OAR) 635-412-0020. Again, the B2H Draft Proposed Order information is now incorrect.

Because of the change of status of the fish population in Ladd Creek, the B2H Draft Proposed Order is out of compliance with several Federal and State laws including:

1. *ORS 509.580 through 509.910: Fish Passage; Fishways; Screening Devices; Hatcheries Near Dams*
2. *OAR 635-41-0005 through 635-412-0040: Fish Passage*
3. *Oregon Forest Practice Administrative Rules and Forest Practices Act, OAR Chapter 629 (ODF 2014)*
4. *Forest Practices Technical Note Number 4, Fish Passage Guidelines for New and Replacement Structures (ODF 2002)*
5. *Fish and Wildlife Mitigation Policy (OAR 635-415-0000), which states that :*

(a) The mitigation goal if impacts are unavoidable, is no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality.

(b) The Department shall act to achieve the mitigation goal for Category 2 habitat by recommending or requiring:

(A) Avoidance of impacts through alternatives to the proposed development action; or

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(c) If neither 635-415-0025(2)(b)(A) or (B) can be achieved, the Department shall recommend against or shall not authorize the proposed development action.

In conclusion, the B2H Draft Proposed Order contains an improper evaluation of the

potential short and long term negative impacts to the fish habitat in the Ladd Creek drainage, including surrounding creeks, given the fact that species listed as threatened under the Endangered Species Act are now returning to Ladd Creek, with their numbers expected to increase in upcoming months and years.

Sincerely,

Lauren March
206 Main Avenue
La Grande, OR 97850
laurenmarch4@gmail.com
(541) 786-8690

ESTERSON Sarah * ODOE

From: Noel March <nmarch94@gmail.com>
Sent: Tuesday, August 20, 2019 9:31 PM
To: B2H DPOComments * ODOE
Subject: B2H and Anadromous Fish
Attachments: Letter to the Energy Facilities Siting council.docx

I've attached my comment to the proposed transmission line below, regarding the B2H project and protected steelhead in the Ladd Creek Watershed.

August 20, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Sent Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Anadromous Fish in Ladd Creek, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. I grew up in La Grande, and am opposed to a project that will irreversibly harm the area I live in, with seemingly no benefit to the local community. One of my major concerns regards the B2H Draft Proposed Order, the Final Environmental Impact Statement, and the project's plan regarding wild and threatened fish.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

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interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see <https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250> HYPERLINK "<https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>"& HYPERLINK "<https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>"sid=824 HYPERLINK "<https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>"& HYPERLINK "<https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>"fid=151).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction has resulted in costs over 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and ([PPT] Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species (ESA). The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

The B2H Draft Proposed Order contains the following outdated information:

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Sincerely,

Noel March
206 Main Avenue
La Grande, OR 97850
nmarch94@gmail.com
(541) 786-8936

ESTERSON Sarah * ODOE

From: Randy March <rmarch2019@outlook.com>
Sent: Tuesday, August 20, 2019 8:34 PM
To: B2H DPOComments * ODOE
Subject: Comments
Attachments: Idaho Power DPO.pdf

August 20, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

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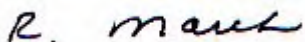
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Sincerely,



Randy March
13878 Sunburst Drive
Littleton, CO 80127
Rmarch2019@outlook.com
720-334-3407

TARDAEWETHER Kellen * ODOE

From: richard markee <dmarkee17@gmail.com>
Sent: Friday, August 16, 2019 3:35 PM
To: B2H DPOComments * ODOE
Subject: Boardman—Hemingway

How can you destroy history? There must be a better way to solve the problem. I am strongly against the project as proposed.

Richard Markee
55 Shoreline Drive
Florence, OR 97439



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) JOANN MARLETTE
Mailing Address (mandatory) 2031 Court St. # 8
Baker City, OR 97814
Phone Number (optional) 541 523-5851 Email Address (optional) joannmarlette@dyedco.com
Today's Date: 6/18/19
Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

June 18, 2019

To: Oregon Department of Energy Facility Siting Council

Oral Comments for Malheur County Hearing Regarding the
Proposed Boadman to Hemingway Transmission Line

Following are some of my comments regarding the EFSC survey area for Wildlife Habitat:

The survey area for wildlife habitat is not adequate and information is not current.

The survey area for wildlife habitat impacts is identified as the siting corridors where the transmission line and other developments will be constructed.

The surveys that were completed were done during 2011 through 2014, ~~but only were done on less than 7% of the 18,263 acres of potential WAGS.~~ The material provided is not current per ODFW (Page P1-17 of the application) stating the surveys are good for 3 years and the sample size was too small to base any decisions ^{on} ~~on~~ Wildlife Condition 2 requires pre-construction surveys regardless of any prior surveys. ~~This does not excuse the developer from documenting eligibility prior to the issuance of a site certificate.~~ The small amount of available habitat surveyed and the outdated nature of the surveys do not allow a determination that this development complies with OAR 345-022-0060.

This transmission line will span over 300 miles. Given the lack of information currently available, and the limited area planned for future wildlife surveys, it is not possible to determine whether or not the transmission line will be in compliance with the above rules. The lack of information extending beyond the site borders makes it impossible for the developer to know if they are working

too close to an active raptor nest or whether they comply with setback requirements.

Without a current, up-to-date survey, there will be no baseline for impact assessment in order to determine how significant the impacts may be and determine if they preclude the issuance of a site certificate.

I will be providing written comment prior to the July 23rd deadline.

Respectfully Submitted,

JoAnn Marlette
2031 Court Street #8
Baker City, OR 97814
Phone: 541-523-5851

<p style="text-align: right;">Page 58</p> <p>1 more stuff, because like I said, I was very ill-prepared 2 for this meeting. 3 HEARING OFFICER WEBSTER: Thank you. 4 Ms. Marlette. 5 MR. JOANN MARLETTE: I'm JoAnn Marlette. I 6 reside at 2031 Court Street, Baker City, Oregon. And 7 I'm here to speak to you about the surveys for wildlife 8 habitat. 9 The survey area for wildlife habitat is not 10 adequate and the information is not current. 11 The survey area for wildlife habitat impacts 12 is identified as the siting corridors where the 13 transmission line and other developments will be 14 constructed. The surveys that were completed were done 15 during 2011 through 2014. The material provided is not 16 current per ODFW page P1-17 of the application, stating 17 the surveys are good for 3 years and the sample size was 18 too small on which to base any decisions. Wildlife 19 Condition 2 requires preconstruction surveys regardless 20 of any prior surveys. The small amount of available 21 habitat surveyed and the outdated nature of the surveys 22 do not allow a determination that this development 23 complies with OAR 345-022-0060. 24 This transmission line will span over 300 25 miles. Given the lack of information currently</p>	<p style="text-align: right;">Page 60</p> <p>1 Baker. Mr. -- is it Baker? 2 MR. DUSTIN BAKER: Baker, yes. 3 HEARING OFFICER WEBSTER: Mr. Baker, if you 4 could please state your name and your address for the 5 record. 6 MR. DUSTIN BAKER: My name is Dustin Baker. I 7 live at 2340 Rock Springs Canyon Road, about a mile and 8 a half north and a little bit west of Jim Foss who 9 testified earlier. I'm also a manager of Faith Land 10 Company, and we own property on the Malheur River west 11 of the irrigated land. And Idaho Power will cross that 12 location. At this time their proposed route is across 13 that location. 14 Regarding the Faith Land Company property, 15 Idaho Power has been very good about contacting us, come 16 out and visited our location, helped site the towers, 17 where they're going to be, consulted with us on the best 18 routes for their access roads, and were very thorough in 19 that process. So I want to commend them on that. 20 However, in regards to the property that we 21 own on Rock Springs Canyon Road, the property 22 transmission line does not technically cross our 23 property; the easement goes across the corner of our 24 property. And so the power lines are sited just off of 25 our property line. Idaho Power has not contacted us in</p>
<p style="text-align: right;">Page 59</p> <p>1 available, and the limited area planned for future 2 wildlife surveys, it is not possible to determine 3 whether or not the transmission line will be in 4 compliance with the above rules. The lack of 5 information extending beyond the site borders makes it 6 impossible for the developer to know if they are working 7 too close to an active raptor nest or whether they 8 comply with setback requirements. 9 Without a current, up-to-date survey, there 10 will be no baseline for impact assessment in order to 11 determine how significant the impacts may be and 12 determine if they preclude issuance of a site 13 certificate. 14 I will be providing written comment prior to 15 the July 23rd deadline. 16 Thank you. 17 HEARING OFFICER WEBSTER: Thank you. 18 Is there anybody else here that would like to 19 give comment this evening? Is there anybody on the 20 phone, do we know, that joined us? 21 IT PERSON: No. 22 HEARING OFFICER WEBSTER: Okay. 23 MR. DUSTIN BAKER: I have the form here. I'll 24 give it to you. I'll submit some written, too. 25 HEARING OFFICER WEBSTER: This is Dustin</p>	<p style="text-align: right;">Page 61</p> <p>1 regards to that property in any way, had no 2 representatives from Idaho Power come and look at that 3 proposed siting. 4 So my concern is similar to Foss's, is that 5 the current proposed route will create additional roads, 6 additional access, additional traffic, that we as 7 private landowners will need to contend with and deal 8 with. In my opinion, if they would have consulted with 9 local landowners who know the area more thoroughly in 10 this location, we could have helped them locate the 11 power line approximately 1 mile directly to the west and 12 farther to the south that would have avoided any of the 13 exclusive farm use property and been off of private 14 property. 15 I'm not sure their reasoning for wanting to 16 continue to keep the power line as close to private 17 property as they can. I don't know if it's easier for 18 them to deal with private property owners than it is to 19 deal with the BLM, Bureau of Land Management. But in 20 this case, they could have done a much better job 21 consulting with the local landowners in that specific 22 area. 23 That's what I'd like to say. Thank you. 24 HEARING OFFICER WEBSTER: Thank you. 25 Anybody else this evening?</p>

June 18, 2019

To: Oregon Department of Energy Facility Siting Council

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Proposed Boadman to Hemingway Transmission Line

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The small amount of available habitat surveyed and the outdated
nature of the surveys do not allow a determination that this
development complies with OAR 345-022-0060.

This transmission line will span over 300 miles. Given the lack of
information currently available, and the limited area planned for
future wildlife surveys, it is not possible to determine whether or
not the transmission line will be in compliance with the above
rules. The lack of information extending beyond the site boarders
makes it impossible for the developer to know if they are working

too close to an active raptor nest or whether they comply with setback requirements.

Without a current, up-to-date survey, there will be no baseline for impact assessment in order to determine how significant the impacts may be and determine if they preclude the issuance of a site certificate.

I will be providing written comment prior to the July 23rd deadline.

Respectfully Submitted,

JoAnn Marlette
2031 Court Street #8
Baker City, OR 97814
Phone: 541-523-5851

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1 not making sure that nothing is going to seed along that
 2 right of way, they are seeding the whole area along
 3 this, which is creating negative impacts to our
 4 agriculture, it's a loss of agricultural growth, it is
 5 causing damages to our threatened and endangered
 6 species, it's causing damages to our habitat. There's a
 7 bunch of rules that apply when you start sending weeds
 8 out over the country.
 9 The Indians have commented directly, saying
 10 they would like this site certificate to apply to the
 11 state law that says that vehicles and equipment have to
 12 be cleaned before they go on to a site or off of the
 13 public roadway. They have to be cleaned before they go
 14 from one landowner to another.
 15 The developer is saying they'll put these
 16 cleaning sites at their multiple use areas. Well, those
 17 are temporary, they're a long ways away from where these
 18 areas are that they're supposed to be cleaning. So
 19 they're flat out not planning on adhering to the state
 20 statutes.
 21 I'm a little upset about this whole weed thing
 22 because they're saying that if the weeds already exist,
 23 well, they're not responsible for more of them. If
 24 there are weeds in the area, they're not responsible for
 25 them going on to the site. Well, I can tell you right

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1 now, that when you start tearing up land and habitat,
 2 that transmission line is going to be a focal point of
 3 noxious weed development. And when they start growing
 4 along the transmission line, that means that they're
 5 going to increase all the way along it with all the
 6 private property.
 7 And at least in Union County, I know we're in
 8 Baker County right now, but in Union County, the line is
 9 81 percent on private land. We have 51 percent BLM
 10 land. And I wish I could remember the figures because I
 11 wrote them down in a comment for Baker. But Baker is
 12 comparable. And so you're talking about private
 13 landowners suffering because this developer wants to
 14 create a freeway that's 250 feet wide across our whole
 15 state practically.
 16 And other things, just in terms of, I'm just
 17 throwing things out here, they're undervaluing our
 18 farmland, they're undervaluing our forest land. They're
 19 saying that in Union County, for instance, that they can
 20 destroy over 500 acres of our forest land, and that it's
 21 worth \$97,000 to our economy. I own forest land. I can
 22 tell you that I wouldn't own forest land if it was worth
 23 \$97,000 over a 50-year period, which is kind of the
 24 period that they talk about.
 25 They say that it's temporary impacts, their

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1 impacts are temporary, if they don't exceed the life of
 2 the development. Now, okay, so you cut our timber down,
 3 there's no timber growing there for the life of the
 4 project, and that's a temporary impact? Hmm. Well, I
 5 think it's kind of a creative definition. There are a
 6 bunch of creative definitions about how they look at
 7 what they have to mitigate for.
 8 Anyway, I'm actually going to give you a
 9 minute or so free time here. But I thank you. You know
 10 you'll be hearing from me again. I hope anybody here
 11 that wants help with their comments, I've been fighting
 12 with EFSC for 8 or 9 years. And while I have far more
 13 losses in my columns than wins, I do have a few wins and
 14 I'm very actively concerned about this.
 15 Thank you.
 16 HEARING OFFICER WEBSTER: Thank you.
 17 Following Ms. Marlette, we'll hear from
 18 Michael Meyer. And Mr. Meyer, when you do come up,
 19 please provide your address and contact information.
 20 MS. JoANN MARLETTE: Hello again. I'm JoAnn
 21 Marlette, and I live at 2031 Fort Street, Baker City,
 22 Oregon. And I am a member of Stop B2H Coalition.
 23 Well, I think all of you are aware that Oregon
 24 has an existing utility corridor, which was set in place
 25 during the administration of Governor Tom McCall. I

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1 knew Tom McCall. As a matter of fact, I typed the first
 2 draft of his mother Dorothy Lawson McCall's book "Ranch
 3 Under the Rimrock."
 4 It was his love of this ranch and to central
 5 Oregon that led him to his commitment to preserve farm
 6 and forest lands. In the early '70s as governor, he
 7 signed Senate Bill 100, which created a statewide land
 8 use regulatory system, aimed at preserving farm and
 9 forest land.
 10 Knowing how important preserving farm and
 11 forest land would be, a utility corridor was set from
 12 Boardman, Oregon, to the Idaho border, so that issues
 13 such as what we are having right now would not exist.
 14 All the utilities would have their corridor and would
 15 not encroach on farm and forest land in other parts of
 16 the state. Idaho Power has claimed many times that
 17 using our existing utility corridor would cost them too
 18 much money.
 19 Also, I find a discrepancy as to their need.
 20 My research shows that market is not growing. Idaho
 21 Power's bill of sales for the last 10 years have been
 22 essentially flat, if not declining. That's supported by
 23 reports from the US government and Idaho Power's own
 24 data.
 25 And thank you so much for your time.

As you all are well aware, Oregon has an existing utility corridor, which was set in place during the administration of Gov Tom McCall. I knew Tom McCall. As a matter of fact, I typed the 1st draft of his mother, Dorothy Lawson McCall's book "Ranch Under the Rimrock."

It was his love of this ranch land in Central Oregon that led him to his commitment to preserve farm and forestland. In the early 1970's, as governor, he signed Senate Bill 100, which created a statewide land-use regulatory system aimed at preserving farm & forestland. Knowing how important preserving farm & forestland would be, a utility corridor was set from Boardman Oregon to the Idaho border, so that issues, such as what we are having right now, would not exist. All utilities would have their own corridor and would not encroach on farm & forestland in other parts of the state. Idaho Power has consistently claimed using our existing utility corridor would cost too much money.

From what I could find, it appears to me that Idaho Power is not going through our public lands because the environmentalists would be after them like stink on a dog. Perhaps even suing Idaho Power for all the reasons we are objecting to it coming through our private property here in northeastern Oregon. I'm sure they don't want to spend tons of their money defending this B2H proposed project through our public lands with the impending threats of lawsuits at their every turn.

Also, I find quite a discrepancy as to need ~ my research shows the market is not growing. Idaho Power's billed sales for the last ten years have been essentially flat, if not declining. That's supported by reports from the US Government and Idaho Power's own data.

I will be providing further written comment prior to the July 23rd deadline.

Respectfully Submitted,

JoAnn Marlette
2031 Court Street
Baker City, OR 97814



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) John Martette

Mailing Address (mandatory) 2031 Court St. #8
Baker City, OR 97814

Phone Number (optional) 541-513-5851 Email Address (optional) johnmartette@yahoo.com

Today's Date: 6/20/19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

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1 decision-making process.
2 Please remember as you reach your decision,
3 that you'll be gone tomorrow, but we'll be living with
4 the effects of your decision, positive or negative, for
5 years to come. Thank you very much.
6 HEARING OFFICER WEBSTER: Thank you.
7 Following Ms. Marlette we will be hearing from
8 Virginia Mammen.
9 Good evening.
10 MS. MARLETTE: Hi. Thank you for allowing us
11 to speak to you this evening. I am JoAnne Marlette,
12 2031 Court Street, Baker City, Oregon. You will
13 probably hear pretty much what I said last night.
14 As you are all well aware, Oregon has an
15 existing utility corridor which was set in place during
16 the administration of Governor Tom McCall. I knew Tom
17 McCall; as a matter of fact, I typed the first draft of
18 his mother, Dorothy Lawson McCall's, book, "Ranch Under
19 the Rimrock."
20 It was his love of this ranchland in Central
21 Oregon that led him to his commitment to preserve farm
22 and forestland. And in the early 1970s, as governor, he
23 signed Senate Bill 100, which created a statewide land
24 use regulatory system aimed at preserving farm and
25 forestland.

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1 Knowing how important preserving farm and
2 forestland would be, a utility corridor was set from
3 Boardman, Oregon, to the Idaho border, so that issues
4 such as what we are having right now would not exist.
5 All utilities would have their own corridor and would
6 not encroach on farm and forestland in other parts of
7 the state. Idaho Power has consistently claimed using
8 our existing utility corridor would cost too much money.
9 From what I could find, it appears to me that
10 Idaho Power is not going through our public lands
11 because the environmentalists would be after them like
12 stink on a dog, perhaps even suing Idaho Power for all
13 the reasons we are objecting to it coming through our
14 private property here in northeastern Oregon. I'm sure
15 they don't want to spend tons of their money defending
16 this B2H proposed project through our public lands with
17 impending threats of lawsuits at their every turn.
18 Also, I find quite a discrepancy as to need.
19 My research shows the market is not growing. Idaho
20 Power's billed sales for the last 10 years have been
21 essentially flat, if not declining. That is supported
22 by reports from the US government and Idaho Power's own
23 data.
24 And I will be providing further written
25 comment prior to the July 23rd deadline. Thank you so

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1 much.
2 HEARING OFFICER WEBSTER: Thank you.
3 Following Ms. Mammen, we will be hearing from
4 Adrian Henderson.
5 SECRETARY CORNETT: Because we are recording
6 it and we have people on the phone, if everybody could
7 speak into the mic, it will be much more helpful for us
8 and those on the phone.
9 MS. VIRGINIA MAMMEN: I'm Virginia Mammen. I
10 live at 405 Balsa here in La Grande. I have lived on
11 Balsa, off Modelaire/Hawthorne Loop for 50 years, and I
12 love and appreciate the area in which I live. Through
13 those years I have learned to appreciate the area in
14 which I live. Although, I have learned that the land
15 around me, not only under my house, but far up into the
16 hills above me are to be respected as much as my
17 neighbors are to be respected.
18 During that time I have also learned that
19 although I have taken good care of my body, age and time
20 demand that I not push it any farther than necessary or
21 it will break down in one place or another.
22 So too the hills west above my house. As I
23 have watched this land creak and grown with the seasons,
24 it has been plagued with fire, drought, and flooding. I
25 have learned it is to be respected as a living being and

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1 should not be pushed. In 2010, this area was determined
2 to be a hazard area and unstable. It moves and shifts
3 with the nudges from Mother Nature making appearances
4 down below my house with cracks and other minor
5 nuisances.
6 I don't see any respect for our hills or me or
7 my neighbors if B2H comes into our area, which is rated
8 "high" or "very high" as a landslide area, while not
9 just to give our hills an occasional push, but to slam
10 them with dynamite, create massive holes, introduce
11 excessively heavy weight and strip them of their beauty,
12 pride, and spirit while opening the opportunity for
13 causing the changing of the underground water paths and
14 land stability and introducing possible new elements for
15 fire hazard. Any one of these could create catastrophic
16 danger to the formerly quiet neighborhood below that I
17 have enjoyed for 50 years.
18 The disturbance of a soil and track-out would
19 pollute the clean area which we cherish. Then there is
20 the noise pollution from both construction and completed
21 project. To me this is not progress in the making but a
22 total lack of respect and appreciation for both people
23 and the land.
24 I would invite you to come walk my
25 neighborhood with me, on the streets meant not for

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.


In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰
These children also live in the neighborhoods to be affected by the noise
so they would be impacted coming and going to school, at home and also
while at school. To impose the constant possibility of loud noises is cruel,
disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so
close to homes, schools, and medical facilities impacting hundreds of
peoples' daily lives, the day to day agitation, wondering what is coming
next, fear and being on constant alert are not just addressed by some type
of mitigation but must be addressed by a route that is much less impactful
to peoples' safety, sanity, and health.

Sincerely,

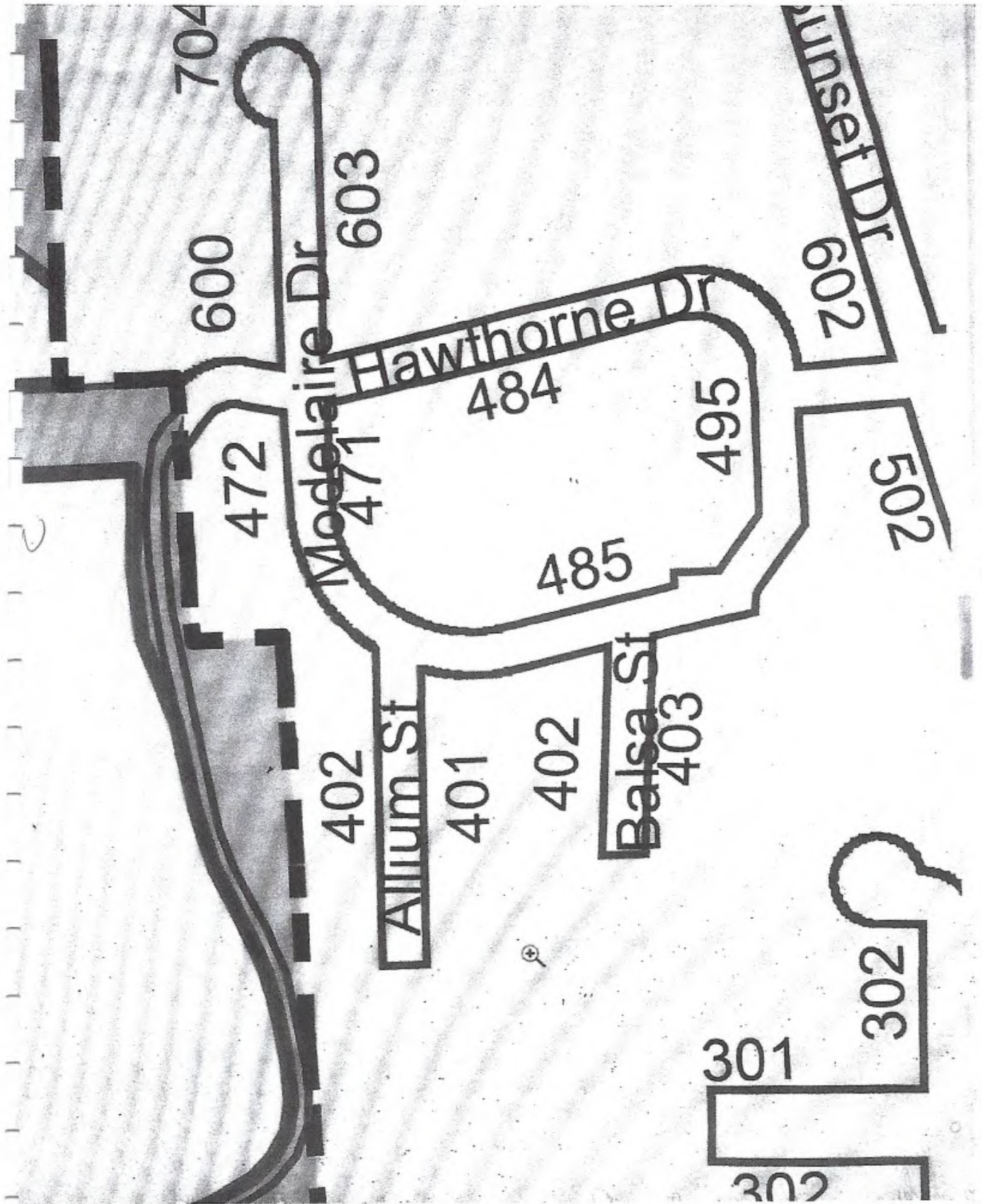


Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

Exhibit 1

N



2

11

5

Exhibit 2

Boardman to Hemingway Transmission Line Project

Exhibit X

3.3 Predicted Noise Levels

OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation of the proposed facility.

3.3.1 Construction Noise

3.3.1.1 Predicted Construction Noise Levels

Project construction will occur sequentially, moving along the length of the Project route, or in other areas such as near access roads, structure sites, conductor pulling sites, and staging and maintenance areas. Overhead transmission line construction is typically completed in the following stages, but various construction activities may overlap, with multiple construction crews operating simultaneously:

- Site access and preparation
- Installation of structure foundations
- Erecting of support structures
- Stringing of conductors, shield wire, and fiber-optic ground wire

The following subsections discuss certain construction activities that will periodically generate audible noise, including blasting and rock breaking, implosive devices used during conductor stringing, helicopter operations, and vehicle traffic.

Blasting and Rock Breaking

Blasting is a short-duration event as compared to rock removal methods, such as using track rig drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills. Modern blasting techniques include the electronically controlled ignition of multiple small-explosive charges in an area of rock that are delayed fractions of second, resulting in a total event duration that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.

Lattice tower foundations for the Project typically will be installed using drilled shafts or piers; however, if hard rock is encountered within the planned drilling depth, blasting may be required to loosen or fracture the rock to reach the required depth to install the structure foundations. Final blasting locations will not be identified until an investigative geotechnical survey of the analysis area is conducted during the detailed design.

The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with applicable state and local blasting regulations, including the use of properly licensed personnel and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in Exhibit G, Attachment G-5.

Implosive Devices

An implosive conductor splice consists of a split-second detonation with sound and flash. Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be developed by an individual certified and licensed to perform the work. The plan will communicate all safety and technical requirements including, but not limited to, delineation of the controlled access zone and distance away from residences.

Exhibit 3

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

- This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
- Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



8/5/2019

Oregon Secretary of State Administrative Rules

Exhibit 4a

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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

Exhibit 4b

8/5/2019

Oregon Secretary of State Administrative Rules

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Exhibit 5a

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.

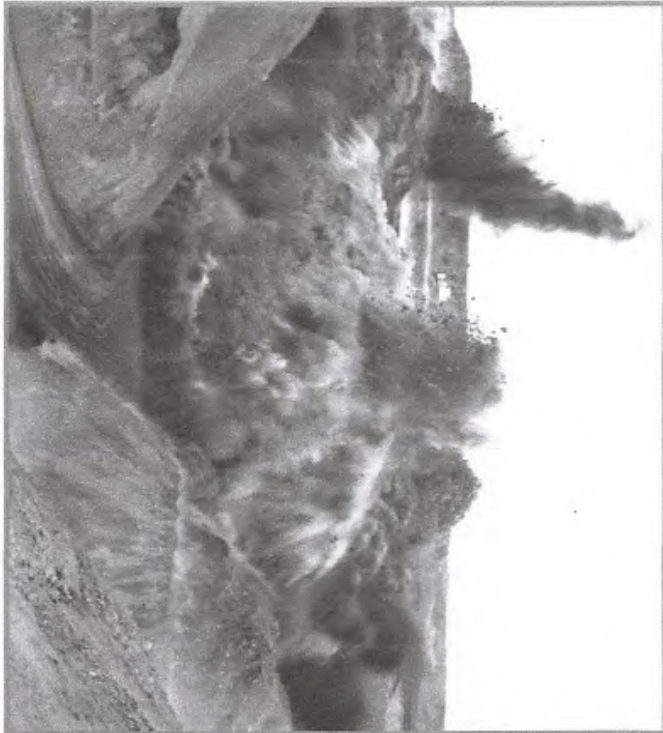
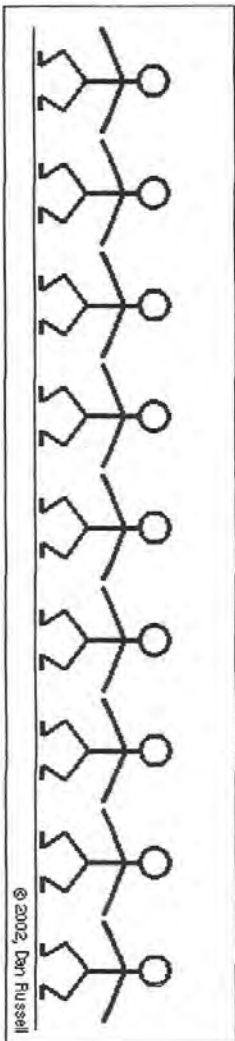


Exhibit 56

Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate *airblast or air vibrations*. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of *ground vibrations*.



Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

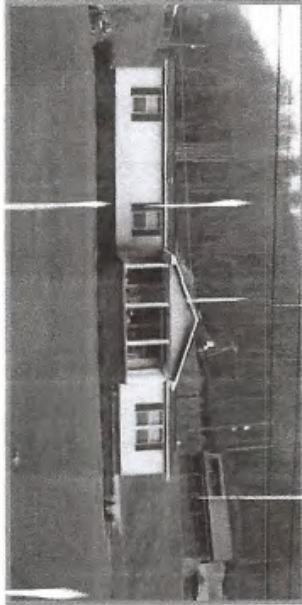
Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

Exhibit 5g

Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects

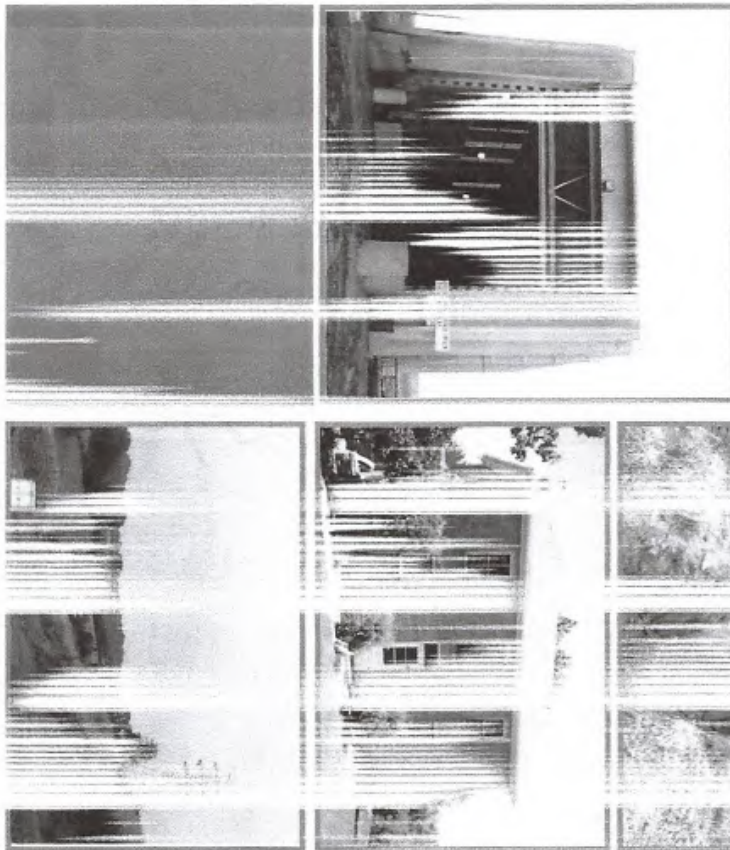
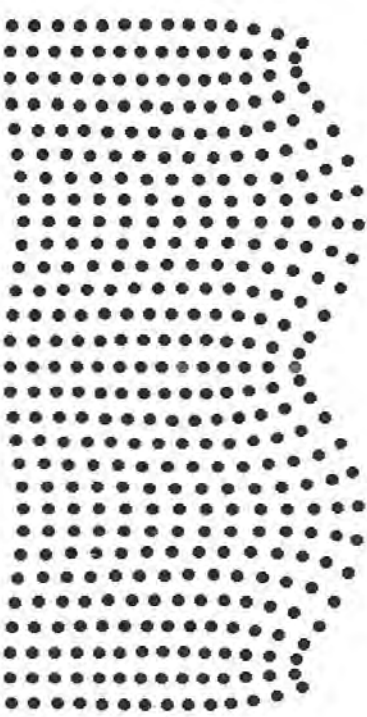


Exhibit 5D

Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

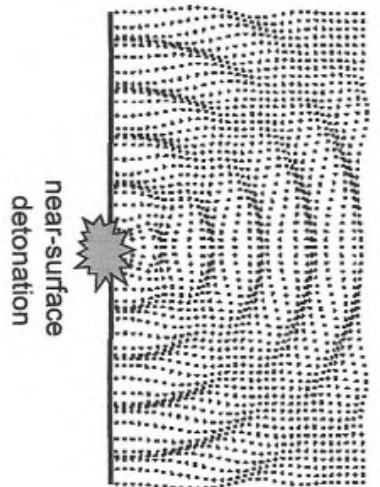
At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Exhibit 5 e

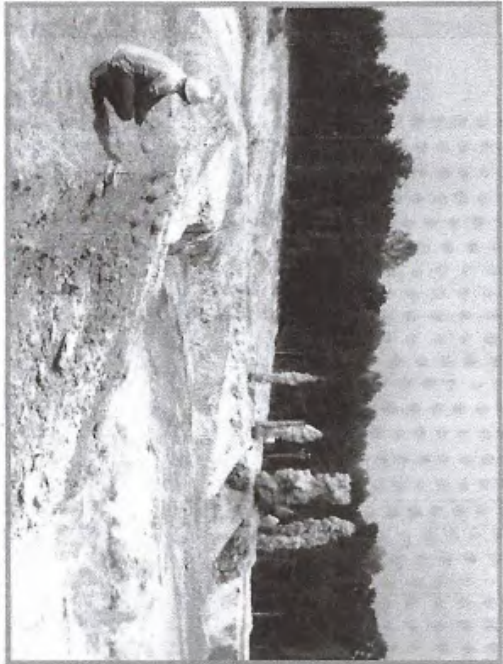
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or in-audible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

Exhibit 5 F

As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

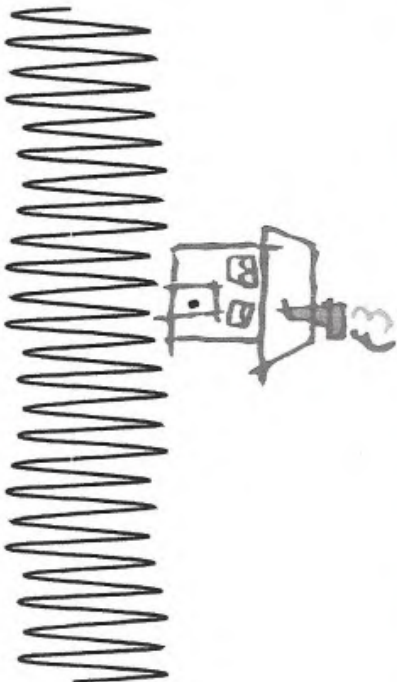
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.



Ground Vibration Structure Response

Exhibit 5g



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

8/4/2019



Harvard Health Publishing
HARVARD MEDICAL SCHOOL

Trusted advice for a healthier life

A noisy problem - Harvard Health

Exhibit 16
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What can we help you find?



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HEALTH

MIND &
MOOD

PAIN

STAYING
HEALTHY

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DISEASES &
CONDITIONS

MEN'S
HEALTH

WOMEN'S
HEALTH

LICENSING

Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

Exhibit 7a

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal



(<https://medcenterblog.uvmhealth.org/>)

UVM Medical Center Blog (<https://medcenterblog.uvmhealth.org/>) » Blog (<https://medcenterblog.uvmhealth.org/blog/>) »
Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

8/4/2019

Hospital Noise: How Noise Reduction Helps Patients Heal

Exhibit 76

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

8/4/2019

Dangerous Decibels: Hospital Noise More Than a Nuisance | RN.com

Exhibit 8a

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the

