

Conditional Use Application

Abernethy Substation



Submitted on behalf of:



Portland General Electric

Submitted by:



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September 14, 2015

PGE Abernethy Substation
Conditional Use/Site and Design Review

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Application Summary

Subject Property:	306 & 308 18 th Street (22E29CB- Tax Lots 1500 and 2000) Oregon City, OR 97045
Site Size:	27,422 SF
Current Zoning Designation:	Mixed Use Downtown (MUD)
Application Submitted for:	Conditional Use/Site and Design Review

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I. PROJECT DESCRIPTION

Portland General Electric (PGE) is requesting Planning Commission approval of a conditional use permit and site/design review to expand the existing Abernethy substation located at 306 18th Street in Oregon City. The substation was built in the late 1950's. The population and employment base in Oregon City has grown significantly in the years since the substation was built. Increasing substation capacity is necessary in order to add capability into the power delivery system, increase system reliability, meet the demands of growth and continue to provide reliable and safe power to serve Oregon City and surrounding areas now and into the future.

Under current conditions at the substation, there is a risk that continued load growth will push the Abernethy transformer beyond its nameplate rating under contingency. Additionally, surrounding PGE substations (particularly Mt Pleasant) are heavily loaded during peak seasons. Nameplate rating is an actual nameplate on the transformer from the manufacturer that says the load that transformer is designed and built for. If a nameplate rating is exceeded frequently, the internal breakdown of that transformer accelerates. PGE avoids exceeding nameplate ratings to maintain the integrity and reliability of the equipment, so there is spare capacity for growth, special agreements with customers, weather emergencies, or to back up other area transformers that are connected through area circuits. PGE system and planning engineers juggle all of these requirements and constantly monitor the system.

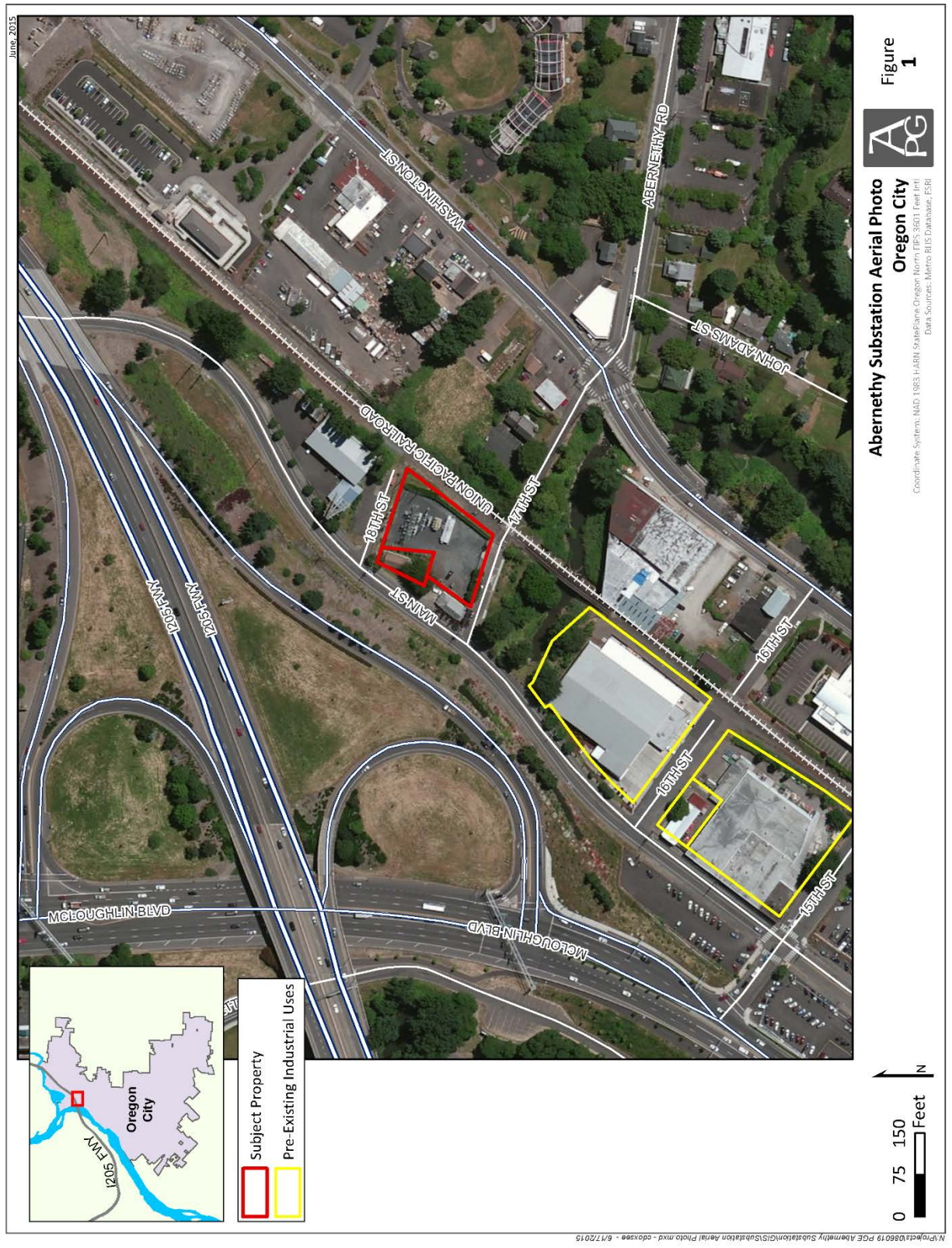
In 2014, PGE completed a study to determine the best way to mitigate loading concerns for the Abernethy WR1 transformer, the Mt Pleasant WR2 transformer, and associated feeders for normal loading and contingent conditions. A transformer and feeder addition at Abernethy was identified as the recommended option to mitigate the loading concerns. The addition of a new transformer and feeder at Abernethy substation will allow for Abernethy substation to serve loads predominantly between Abernethy and Mt Pleasant substation. Mt Pleasant substation will then be able to serve the denser areas south of the substation. Stronger area ties between Abernethy substation and Mt Pleasant substation will allow for loads in the study area to be picked up under contingency, even during seasonal peak periods, and increase overall system reliability.

In 2014, an adjacent parcel to the west of the Abernethy substation (308 18th Street) was purchased by PGE and the dwelling demolished to make room for the proposed substation expansion. **Figure 1** shows an aerial photo of the subject property and the contiguous tax lots owned by PGE.

Appendix A includes the plans to support the application narrative. The plans are referenced as follows in the application findings:

- A-1: Site Plan
- A-2: General Layout
- A-3: Lighting Plan
- A-4: Lighting Plan (contours)
- A-5: Landscape Plan

Existing electrical equipment and fencing is shown in black on the Site Plan and General Layout plans, with new electrical equipment and a new segment of wall shown in blue. As shown on the plans, the majority of the new electrical equipment, including the second transformer, will be located within the existing fenced area. Pending approval of land use permits, PGE expects to begin construction on the Abernethy substation expansion in early 2016.



II. GENERAL INFORMATION

Location and Land Characteristics

The Abernethy substation is located north of the downtown area of Oregon City. PGE owns two contiguous tax lots that comprise the “subject property” for this application:

- Map #22E29CB – 01500 (approximately 23,522 square feet)
- Map #22E29CB-02000 (approximately 3,920 square feet)

The existing substation facilities are located on Tax Lot 1500 and the majority of the new equipment will be located inside the existing substation fence on this tax lot (see plans in **Appendix A**). PGE is proposing to expand the footprint of the substation to the west to include Tax Lot 2000.

The subject property is bounded by transportation facilities on four sides:

- South – 17th Street
- North – 18th Street
- East – UP Rail Corridor
- West – Main Street & I-205 berm

The subject property is level and is at an elevation of about 50 feet Mean Sea Level (MSL). The topography drops to about 30 feet MSL to the south side of 17th Street and there is a railroad trestle over the creek. The height of the berm adjacent to I-205 on the west side of Main Street is approximately 70 feet MSL.

Zoning History

Figure 2 shows existing zoning for the subject property and surrounding parcels. The subject property is included in the Mixed Use Downtown (MUD) zoning district. This zoning implements the Mixed Use Downtown designation on the Comprehensive Plan Map.

The existing substation was built in the late 1950's. Oregon City first adopted zoning in 1953. There is no record of a land use approval for the existing substation and the use is considered a legal non-conforming use. Zoning for the substation and the larger area north of downtown was Industrial until 2004. Public utilities, including substations, were listed as a permitted use in the Industrial zone. Oregon City adopted a legislative plan amendment and zone change in 2004 and applied the Mixed Use Downtown zoning district to the downtown area and parcels north of downtown, including the PGE parcel. Public utilities such as substations are listed as a conditional use in the Mixed Use Downtown zone and the Oregon City Code does not allow expansion of a legal non-conforming use. Therefore, approval of the requested conditional use permit application is required for the proposed expansion of PGE's Abernethy substation.

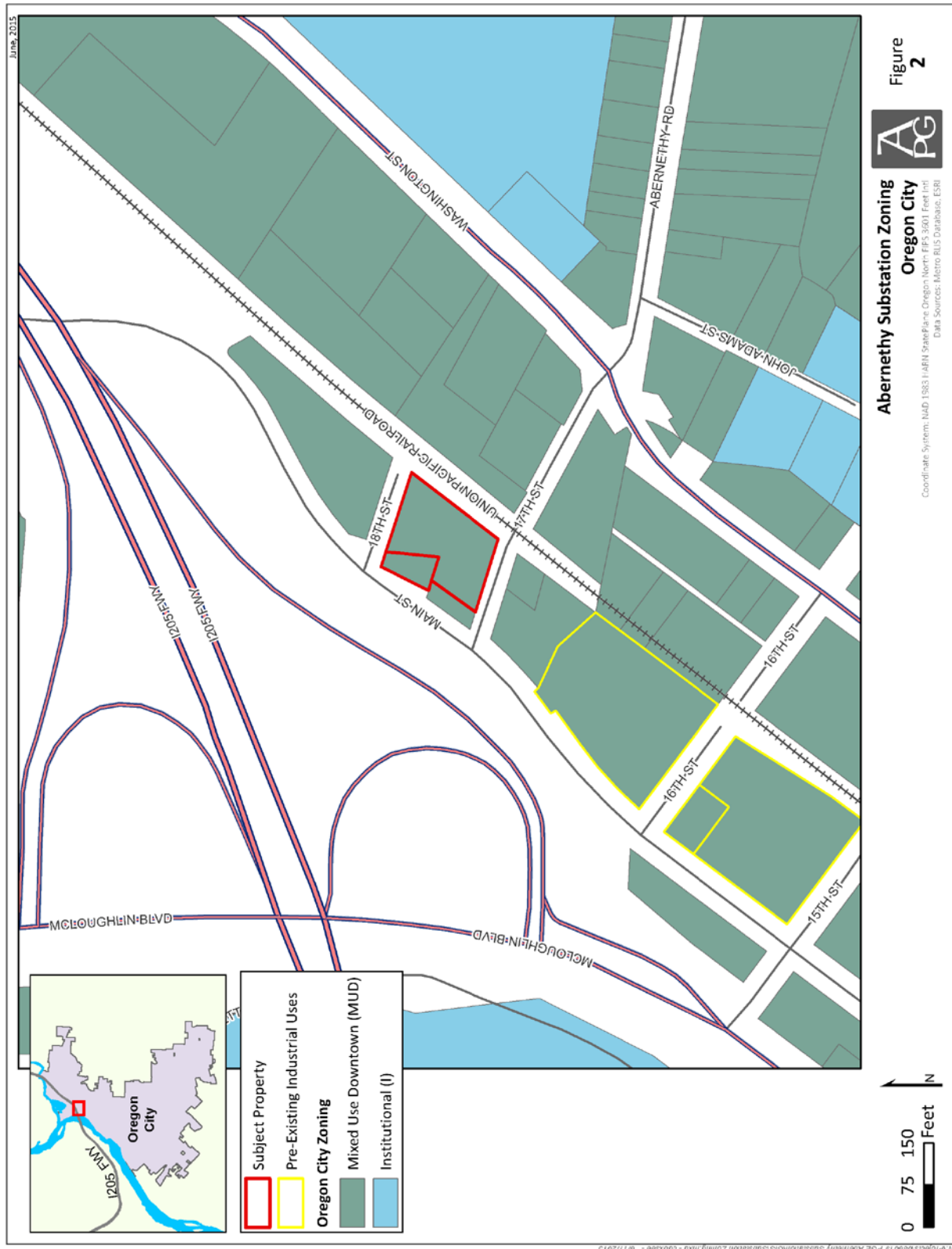


Figure
2



When Oregon City applied the new Mixed Use Downtown zoning in 2004, special provisions were included for industrial uses on the following tax lots:

Map #22E20DD, Tax Lot 5400

Map #22E30DD, Tax Lots 100 & 200

Map #22E29CB, Tax Lot 700

These properties may maintain and expand their industrial uses on existing tax lots. A change in use is allowed as long as there is no greater impact on the area than the existing use. Three of the four tax lots with special provisions for industrial uses are in close proximity to the Abernethy substation and are shown (in yellow) on **Figure 2**.

Public Utilities and Streets

Electrical power substations are a “low impact” use in terms of public facilities and streets. No employees are based at the site and public water and sewer service is not required. The substation is monitored remotely and traffic impacts associated with the utility use are minimal.

The substation is accessed from existing driveways (gated) on 17th and 18th Streets and the proposed expansion will not change the existing driveways or access.

The following excerpts are taken from the full comments regarding public utilities and streets in the Pre-Application Summary (see **Appendix B-2**).

Streets

1. The proposed development includes frontage on Main Street, which is classified as a collector street (mixed-use).
2. The existing right-of-way (ROW) on the portion of Main Street fronting the proposed development is 60’ and the pavement is approximately 34’ wide with two travel lanes and two bike lanes. The street has curb and gutter and 5’ sidewalk curb tight sidewalk.
3. The street is fully developed in this fashion for some distance. It appears that the applicant could make the case that no improvements are needed in order to match the existing development. Note: Following the pre-application conference, city staff indicated that while street improvements are not required for this project, dedication of right of way (a minimum of 40 feet from the centerline of Main Street to the property line) will be required as a condition of approval. The required area of dedication is shown on the Site Plan (see **Appendix A-1**).
4. The proposed development includes frontage on 17th and 18th Street, which are classified as local streets (mixed-use).

5. The existing right-of-way (ROW) on the portion of 17th Street fronting the proposed development is 40' and the pavement is approximately 25' wide with two travel lanes. The street has curb and gutter and 5' sidewalk curb tight sidewalk. There is an uncontrolled railroad crossing.
6. The existing right-of-way (ROW) on the portion of 18th Street fronting the proposed development is appears to be 40' and the pavement is approximately 18' wide with two travel lanes. The street has curb and gutter, 4' planter strip and 4' sidewalk. The street is only one block long and dead ends at the railroad tracks.
7. Both streets are fully developed in this fashion, and 18th Street dead ends at the railroad tracks. It appears that the applicant could make the case that no improvements are needed in order to match the existing development.

Water

8. There is an 8" water line installed in Main Street, and a 6" water line on 17th Street.
9. It is assumed that the only water service that may be required would be for irrigation. Appropriate backflow devices would be needed.
10. No public water improvements are anticipated.

Sanitary Sewer

11. There is an 8" PVC sanitary sewer pipe installed in Main Street, and on 18th Street.
12. No public sanitary sewer improvements are anticipated.

Natural Resources

Following the pre-application conference, staff confirmed that the proposed development was not located within the geologic hazard overlay or the natural resource overlay district (NROD). Therefore, code provisions relating to those overlays are not applicable to the proposed substation expansion.

As shown on the Site Plan (see **Appendix A-1**), the subject property is at elevation 50'. This elevation is above the 100-year floodplain elevation of 48' as shown on the FEMA flood insurance maps dated June 17, 2008. However, the subject property is within the area of inundation (50.7') for the February 1996 flood.

PGE looked up old system records and confirmed that they were able to keep the Abernethy substation in service during the February 1996 flood. The site surface was flooded but water never got high enough to require an outage for overhead transmission service into the site or neighborhood 13kV service out of the substation.

PGE understands that no net fill in any floodplain is allowed. PGE has coordinated with city staff to determine what equipment or development is included in the cut & fill calculation. Staff confirmed that the demolition of the dwelling that was previously located on the subject property could be counted toward the “cut.”

Appendix D includes the preliminary engineering calculations to document that the proposed development results in a “net” cut of approximately 100 cubic yards below the 1996 flood elevation of 50.7’ and is in compliance with the standards in Chapter 17.42 (Flood Management Overlay District). The calculations were updated on September 1, 2015 to reflect the proposed construction of a wall instead of a chain link fence along the west and north sides of the proposed expansion area.

Neighborhood Meeting

On April 22, 2015, PGE staff Jim Vondenkamp and Mark Lindley attended the regular meeting of the Two Rivers Neighborhood Association and made a presentation on the proposed expansion of the Abernethy substation. At the April 22nd meeting, PGE presented photos of “decorative” black chain link fence with art installed at an urban substation in Portland and proposed a similar treatment for the expanded portion of the Abernethy substation facing Main Street. A copy of the minutes and sign-in sheet from the meeting is included in **Appendix C-1**. Following a motion by Jerry Herrmann, the Two Rivers NA gave full support for PGE’s proposed expansion of the substation at 18th & Main Streets.

After the neighborhood meeting, PGE refined the approach to landscaping and screening. First, code standards require landscaping for the substation expansion, particularly for the area visible from the public right-of-way. With a minimal strip (5 feet) available for landscaping in front of the proposed chain link fence, PGE proposed planting shrubs that would grow up to completely screen the fence. Therefore, PGE decided that it didn’t make sense to use the decorative fencing with art if it would be completely obscured by the mature hedge within 5-10 years.

During the completeness review of the initial application submittal (July 2, 2015) staff indicated that they would not recommend approval of a variance to use chain link fencing for the substation expansion toward Main Street. Based on that guidance, PGE decided to modify the plans to substitute an 8-foot wall for the 8-foot chain link fence. PGE also talked with staff about the possibility of extending the landscape area in front of the wall by about 5 feet into the wide, unimproved public right-of-way. As shown on the revised photo simulation (see Figure 3) and Landscape Plan (see Appendix A-5), PGE now proposes to plant a mix of vertical and horizontal elements instead of a continuous hedge in a 10-foot planting area to soften the visual impact of the wall from Main Street.

III. COMPLIANCE WITH OREGON CITY ZONING ORDINANCE

Applicable Procedures & Code Sections

PGE representatives attended a pre-application conference with staff planner Kelly Moosbrugger on March 18, 2015 to discuss the proposed substation expansion. Based on a review of the preliminary plans for the expansion, Ms. Moosbrugger indicated that the proposed expansion would require a Type III conditional use/site plan/design review. PGE understands that the following steps are associated with a Type III land use application.

- Pre-Application Conference (see materials in **Appendix B**).
- Neighborhood Meeting (see materials in **Appendix C**).
- Review of Application for Completeness
- Public Notice of Application (including mailed, posted and newspaper notice)
- Public Comment
- Staff Report
- Public Hearing before Planning Commission
- Notice of Planning Commission decision
- Opportunity for appeal to the City Commission and potentially to the Land Use Board of Appeals

Following the pre-application conference, Ms. Moosbrugger provided a template of all relevant plan and code sections that must be addressed in the application. All the code sections are included in this narrative and highlighted in *italic type*, with responses provided to explain why the proposed substation expansion complies with the relevant code section.

PGE submitted the application on July 2, 2015. On July 28, 2014 – city staff determined that the application was incomplete for the following reasons:

- Fees were calculated improperly, with a remaining balance due.
- A request for chain link fence requires a variance, code responses and an additional fee. Staff indicated that they would not support a variance and strongly recommended that PGE consider a different option (such as a wall).
- Clarify if two trees to be removed are inside or outside of the “construction area.”
- Provide code responses to Chapter 17.54.100 – Fences.
- Request for barbed wire will be reviewed by the Planning Commission. (Note: the barbed wall will not be installed on the top of the wall, but will instead be angled to the inside of the substation. The barbed wire will not be visible from Main Street).

The application narrative and plans have been revised to address the items identified as “incomplete” in the July 2nd submittal.

The proposed substation expansion does not include buildings, parking facilities or other types of improvements that are the focus of many of the site plan/design review standards.

Therefore, many of the responses indicate that the referenced code provisions are not applicable.

Chapter 17.34 “MUD” – Mixed Use Downtown District

17.34.020 Permitted Uses.

Permitted uses in the MUD district are defined as:

- A. *Any use permitted in the Mixed Use Corridor without a size limitation, unless otherwise restricted in Sections 17.34.020, 17.34.030 or 17.34.040;*
- B. *Hotel and motel, commercial lodging;*
- C. *Marinas;*
- D. *Religious institutions,*
- E. *Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, specialty stores provided the maximum footprint of a free standing building with a single store does not exceed sixty thousand square feet (a free standing building over sixty thousand square feet is allowed as long as the building contains multiple stores);*
- F. *Live/Work Units*

Response: A substation is not identified as a permitted use in the MUD zone. The existing substation was built more than 50 years ago when the north downtown area was zoned for Industrial use. The substation is considered a legal non-conforming use in the MUD zone. However, the City Code does not allow expansion of a legal non-conforming use. Therefore, PGE must proceed with a conditional use/site and design review application for the proposed expansion. The conditional use review applies to the entire subject property (Tax Lots 1500 and 2000) and the site/design review applies to the expansion of the substation footprint onto Tax Lot 2000.

17.34.030 Conditional Uses.

The following uses are permitted in this District when authorized and in accordance with the process and standards contained in Chapter 17.56.

- A. *Ancillary drive-in or drive-through facilities;*
- B. *Emergency services;*
- C. *Hospitals;*
- D. *Outdoor markets that do not meet the criteria of Section 17.34.020(L);*
- E. *Parks, playgrounds, play fields and community or neighborhood centers;*
- F. *Parking structures and lots not in conjunction with a primary use;*
- G. *Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies and specialty stores in a free standing building with a single store exceeding a foot print of sixty thousand square feet;*
- H. *Public facilities such as sewage and water treatment plants, water towers and recycling and resource recovery centers;*

- I. Public utilities and services such as pump stations and substations; (emphasis added)*
- J. Distributing, wholesaling and warehousing;*
- I. Gas Stations*
- K. Public and or private educational or training facilities*
- L. Stadiums and arenas*
- M. Passenger terminals (water, auto, bus, train)*
- N. Recycling center and/or solid waste facility*

Response: A substation is identified as a use that may be permitted in the MUD District when a conditional use permit is approved. The proposed expansion of the “footprint” of the substation onto Tax Lot 2000 triggers the requirement for a conditional use permit. As noted above, if approved by the Planning Commission, the existing substation on Tax Lot 1500 and the proposed expansion onto Tax Lot 2000 will be authorized as an approved conditional use in the MUD zone and the existing substation will no longer be considered a legal non-conforming use.

17.34.040 Prohibited Uses.

The following uses are prohibited in the MUD district:

- A. Kennels;*
- B. Outdoor storage and sales, not including outdoor markets allowed in Section 17.34.030;*
- C. Self-service storage;*
- D. Single-Family and two-family residential units*
- E. Motor vehicle and recreational vehicle repair / service*
- F. Motor vehicle and recreational vehicle sales and incidental service*
- H. Heavy equipment service, repair, sales, storage or rental (including but not limited to construction equipment and machinery and farming equipment)*

Response: The Abernethy substation does not and will not include any uses that are prohibited in the MUD District.

17.34.060 Mixed Use Downtown Dimensional Standards—for Properties Located Outside of the Downtown Design District.

- A. Minimum lot area: none.*

Response: The subject property is located outside of the Downtown Design District. While no minimum lot area is specified for the MUD District, the combined lot area for both Tax Lots 1500 and 2000 (27,442 square feet) provides sufficient space to accommodate the new substation equipment and maintain substantial setbacks to the new wall as shown on the Site Plan (see **Appendix A-1**).

B. *Minimum floor area ratio: 0.30.*

Response: Minimum floor area ratios are applied to new buildings. There are no existing or proposed buildings on the subject property. Therefore, the minimum floor area ratio is not applicable to the existing substation or proposed expansion.

C. *Minimum building height: twenty-five feet or two stories except for accessory structures or buildings under one thousand square feet.*

Response: This standard only applies to buildings. There are no existing or proposed buildings on the subject property. Therefore, the minimum building height standard is not applicable to the existing substation or proposed expansion.

D. *Maximum building height: seventy-five feet, except for the following locations where the maximum building height shall be forty-five feet:*

1. *Properties between Main Street and McLoughlin Boulevard and 11th and 16th streets;*
2. *Property within five hundred feet of the End of the Oregon Trail Center property; and*
3. *Property within one hundred feet of single-family detached or detached units.*

Response: This standard only applies to buildings. There are no existing or proposed buildings on the subject site. Therefore, the maximum building height standard is not applicable to the existing substation or proposed expansion.

E. *Minimum required setbacks, if not abutting a residential zone: none.*

Response: The subject property does is not adjacent to a residential zone. Therefore, there are no minimum setbacks required by the MUD zone. However, the conditional use standards for a public utility or communication facility include special setback provisions based on the height of the equipment. The special standards are addressed in Section 17.56.040.C of this narrative.

F. *Minimum required interior side yard and rear yard setback if abutting a residential zone: fifteen feet, plus one additional foot in yard setback for every two feet in height over thirty-five feet.*

Response: The subject property is not adjacent to a residential zone. Therefore, no setbacks are required by the MUD zone. As noted above, the special setbacks for a public utility or communication facility are addressed in Section 17.46.040.C of this narrative.

G. *Maximum Allowed Setbacks.*

1. *Front yard: twenty feet provided the site plan and design review requirements of Section 17.62.055 are met.*

Response: The maximum front yard setbacks are applicable to buildings. There are no existing or proposed buildings on the subject property. Therefore, the maximum front yard setback

standard is not applicable to the existing substation or proposed expansion. As shown on the General Layout (see **Appendix A-2**), the proposed expansion onto Tax Lot 2000 will maintain a 26 foot setback from the new electrical equipment to the property line along the Main Street frontage.

Chapter 17.56 Conditional Uses

17.56.010 Permit--Authorization--Standards--Conditions.

A conditional use listed in this title may be permitted, enlarged or altered upon authorization of the Planning Commission in accordance with the standards and procedures of this title. A conditional use permit listed in this section may be permitted, enlarged or altered upon authorization of the Planning Commission in accordance with the standards and procedures of this section. Any expansion to, alteration of, or accessory use to a conditional use shall require Planning Commission approval of a modification to the original conditional use permit.

Response: The Abernethy substation was built on Tax Lot 1500 more than 50 years ago when the site was zoned for Industrial use. No conditional use permit was required and the substation is recognized as a legal non-conforming use. PGE is proposing an expansion of the substation and related electrical equipment onto Tax Lot 2000. Oregon City's code does not allow expansion of a legal non-conforming use. Approval of a conditional use permit is required for the expansion since the substation is listed as a conditional use in the MUD District. If approved by the Planning Commission, the existing substation and the proposed expansion will be recognized as an approved conditional use in the MUD zone and will no longer be considered a legal non-conforming use.

A. *The following conditional uses, because of their public convenience and necessity and their effect upon the neighborhood shall be permitted only upon the approval of the Planning Commission after due notice and public hearing, according to procedure as provided in Chapter 17.50. The Planning Commission may allow a conditional use, provided that the applicant provides evidence substantiating that all the requirements of this title relative to the proposed use are satisfied, and demonstrates that the proposed use also satisfies the following criteria:*

1. *The use is listed as a conditional use in the underlying district;*

Response: A substation is listed as a conditional use in the underlying MUD district (see 17.34.030.I). Therefore, this criterion is met.

2. *The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements and natural features;*

Response: PGE built the Abernethy substation at this location more than 50 years ago and the substation has operated continuously since that time. While the substation site is smaller than

many PGE substations, it exhibits many characteristics that are suitable for the existing use and the proposed modest expansion, including the following:

- Adequate site size and shape to accommodate electrical equipment with required safety clearances
- Spacing relative to existing substations
- Proximity to transmission lines and feeders
- Central location to serve the electrical load growth
- Level site topography
- Compatible surrounding uses – including streets on three sides, the UP rail corridor, the I-205 freeway and ramps, and established industrial uses between 15th and 17th Streets.

3. *Development shall demonstrate compliance with Chapter 12.04 - Streets, Sidewalks and Public Places.*

Response: As confirmed in the Pre-Application meeting notes from the City Engineer (see **Appendix B-2**), the proposed expansion of the Abernethy substation does not trigger a requirement for street improvements. PGE understands that right-of-way dedication will be required to provide a minimum of 40 feet from the centerline of Main Street to the property line of 308 18th Street. The right-of-way dedication area is shown on the Site Plan (see **Appendix A-1**).

4. *The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs or precludes the use of surrounding properties for the primary uses listed in the underlying district;*

Response: The Abernethy substation is an existing use that has operated continuously at this location for more than 50 years. The location is well-suited to the substation use with the proximity to the active railroad corridor, the close proximity to I-205, and the pre-existing industrial uses in the immediate vicinity. The structure on the corner of 17th & Main Street (a designated historic structure) is operated as a business/office use and is not occupied as a dwelling. Over time, there may be some transition of uses in the North Downtown area, and the Mixed Use Downtown zone permits a wide variety of retail service and commercial uses. However, the segment of Main Street north of 15th Street to the undercrossing of I-205 will never develop as a typical “Main Street” with uses and buildings close to the street on both sides because ODOT owns the right-of-way to the west side of Main Street that is developed with I-205 ramps.

There may be additional traffic (vehicular and pedestrian) along the segment of Main Street adjacent to the proposed substation expansion between the Clackamette Cove and downtown areas with expected development in both of those areas. PGE will dedicate right-of-way at the corner of 18th & Main Street to accommodate streetscape improvements along Main Street if pursued by Oregon City at a future date. However, the wider right-of-way and streetscape

improvements would likely require demolition of the historic structure at the corner of 17th & Main.

The scale of the proposed substation expansion is about 15 percent of the size of the existing substation footprint. Based on the long history of operation, the substation has not substantially limited, impaired or precluded the use of surrounding properties. PGE proposes to plant a mix of vertical and horizontal vegetation in front of the new wall that will provide some screening and buffering of the utility use to pedestrians along Main Street. **Figure 3** provides shows the existing substation and a photo simulation view of the expansion with the new wall and added plantings.

VIEWPOINT 1

Date	6/4/2015
Time	4:34 PM
Viewing Direction	Southeast

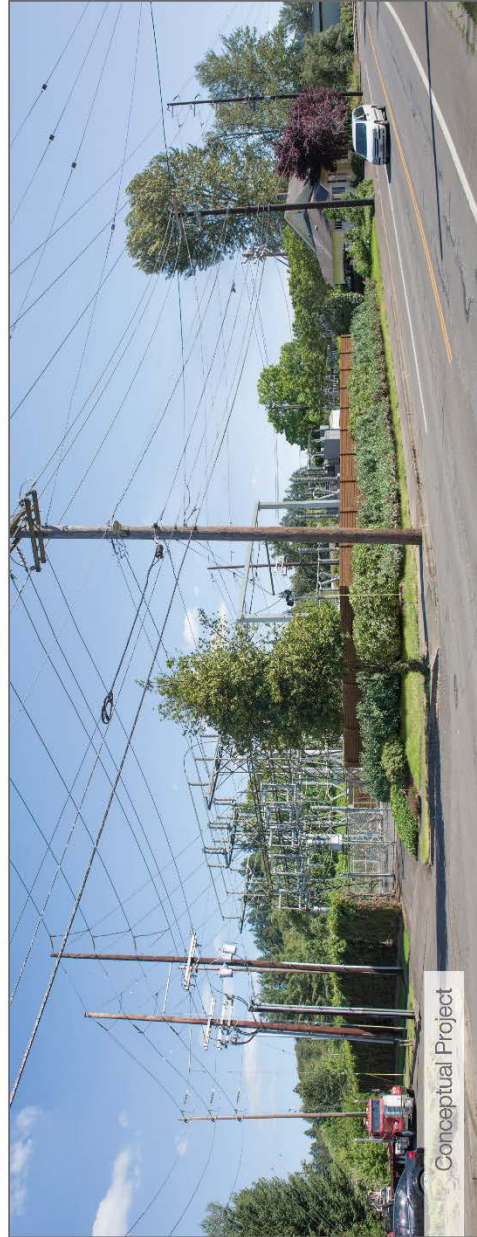


Photo simulations are for discussion purposes only and may change pending public, regulatory and utility review. Vegetation is shown at full maturity.

ABERNETHY SUBSTATION



Figure 3

The substation expansion will be designed to meet all applicable state and federal standards and regulations pertaining to electrical safety, clearances, etc. The use does not involve the storage, transportation or disposal of any hazardous materials. Operation of the substation does not generate air emissions, odor, heat or glare. Transformers are the only source of continuous sound generation in an electric utility substation. The new 28 MVA transformer will be a factory-reduced sound level unit that is guaranteed by the manufacturer to produce less than 64dBA, measured 3 feet from the transformer tank. The 64dBA occurs only at heavy transformer loading times such as extreme weather events causing a higher nameplate rating temporarily. During normal operations the settings are lower and far less than 64dBA. This is PGE's standard transformer design and it is being used for future compatibility with other transformers in the PGE system.

At the meeting with the Two Rivers Neighborhood Association, members of the NA commented that there is relatively high background noise at this location with the active rail corridor and traffic noise from I-205. Therefore, the proposed expansion of the Abernethy substation will not alter the character of the surrounding area in a manner that substantially limits, impairs or precludes the use of surrounding properties for primary uses listed in the Mixed Use Downtown (MUD) zone. As shown on **Figure 2**, the MUD zone specifically recognizes continued industrial uses on four tax lots in proximity to the existing substation.

5. *The proposal satisfies the goals and policies of the City Comprehensive Plan which apply to the proposed use.*

Goal 2.2: Downtown Oregon City

Develop the Downtown area (which includes the historic downtown area, the "north end" of the downtown, Clackamette Cove, and the End of the Oregon Trail area) as a quality place for shopping, living, working, cultural and recreational activities, and social interaction. Provide walkways for foot and bicycle traffic, preserve views of Willamette Falls and the Willamette River, and preserve the natural amenities of the area.

Response: As noted earlier in the narrative, PGE has operated the Abernethy substation at this location for more than 50 years. The zoning of the "north end" of downtown has transitioned over time from the historical emphasis on industrial uses to the more recent emphasis on mixed uses. The subject site is not located in an area that provides views of the Willamette Falls or the Willamette River. The frontage of Main Street adjacent to the subject site is improved with a sidewalk. The public right-of-way for Main Street is irregular and PGE will dedicate the right-of-way needed to assure 40 feet from the center line to accommodate future streetscape improvements if they are pursued by the City.

Goal 2.4 Neighborhood Livability

Provide a sense of place and identity for residents and visitors by protecting and maintaining neighborhoods as the basic unit of community life in Oregon City while implementing the goals and policies of the other sections of the Comprehensive Plan.

Response: The existing Abernethy substation is not located in an established residential neighborhood. The character of the “north end” of downtown is mixed, with industrial uses, institutional uses (including the End of the Oregon Trail, the rail depot and Metro’s waste transfer station), some offices and scattered dwellings. The substation has operated at this location for more than 50 years and provides power to serve the full range of land uses in the area north of downtown and the larger service area.

Goal 11.7: Non-City Utility Operations

Coordinate with utilities that provide electric, gas, telephone and television cable systems, and high speed internet to Oregon City residents to ensure adequate service levels.

Response: PGE regularly coordinates with the City of Oregon City on utility and development plans. PGE is proceeding with the proposed expansion of the Abernethy substation to ensure maintenance and improvement of adequate electrical service for residential, business and institutional uses in Oregon City.

- B. Permits for conditional uses shall stipulate restrictions or conditions which may include, but are not limited to, a definite time limit to meet such conditions, provisions for a front, side or rear yard greater than the minimum dimensional standards of the zoning ordinance, suitable landscaping, off-street parking, and any other reasonable restriction, condition or safeguard that would uphold the spirit and intent of the zoning ordinance, and mitigate adverse effect upon the neighborhood properties by reason of the use, extension, construction or alteration allowed as set forth in the findings of the planning commission.*

Response: PGE understands that the Planning Commission may stipulate reasonable restrictions or conditions as part of the public hearing process and conditional use review.

- C. Any conditional use shall meet the dimensional standards of the zone in which it is to be located pursuant to subsection B of this section unless otherwise indicated, as well as the minimum conditions listed below.*

Response: The MUD District does not include specific dimensional standards for lot size, depth or width or setbacks. The special setback standards applicable to public utilities and communication facilities (relative to the height of the equipment) are addressed later in this narrative.

- D. *In the case of a use existing prior to the effective date of the ordinance codified in this title and classified in this title as a conditional use, any change of use expansion of lot area or expansion of structure shall conform with the requirements for conditional use.*

Response: The existing substation was established on Tax Lot 1500 before the subject site was zoned MUD. PGE is proceeding with this consolidated land use application because the proposed expansion of the substation onto Tax Lot 2000 triggers the requirement for conditional use approval. If approved by the Planning Commission, the existing and new substation facilities on the subject property (Tax Lots 1500 and 2000) will be an authorized conditional use in the MUD zone and will no longer be considered a legal non-conforming use.

- E. *The Planning Commission may specifically permit, upon approval of a conditional use, further expansion to a specified maximum designated by the planning commission without the need to return for additional review.*

Response: Assuming Planning Commission approval of the conditional use permit and site/design review, the new wall will establish the maximum footprint for the substation expansion.

17.56.020 Permit--Application.

- A. *A property owner or authorized agent shall initiate a request for a conditional use by filing an application with the city recorder. The applicant shall submit a site plan, drawn to scale, showing the dimensions and arrangement of the proposed development. The application shall be accompanied by the filing fee listed in Section 17.50.480 to defray the costs of publication, investigation and processing.*

Response: PGE is initiating the request for a conditional use by filing appropriate application materials, including a site plan and appropriate filing fees.

- B. *Before the planning commission may act on a conditional use application, it shall hold a public hearing thereon, following procedure as established in Chapter 17.50.*

Response: PGE understands that the proposed expansion of the substation will be subject to a Type III review process, including public notice, a public hearing before the Oregon City Planning Commission, and the opportunity for an appeal to the City Commission. The relevant procedures established in Chapter 17.50 will be met.

17.56.040 Criteria and Standards for Conditional Uses.

In addition to the standards listed herein in Section 17.56.010, which are to be considered in the approval of all conditional uses and the standards of the zone in which the conditional use is located, the following additional standards shall be applicable:

- B. Additional Street Right-of-Way. The dedication of additional right-of-way may be required where the city plan indicates need for increased width and where the street is inadequate for its use; or where the nature of the proposed development warrants increased street width.*

Response: Comments from the City Engineer at the pre-application conference (see **Appendix B-2**) confirm that the proposed expansion of the substation does not warrant increased street width or street improvements. However, following the pre-application conference, the City Engineer indicated that a small area of right-of-way dedication would be required at the corner of Tax Lot 2000 at the intersection of 18th & Main to accommodate 40 feet from the center line of Main Street for future streetscape improvements. The area of right-of-way dedication is shown on the Site Plan and Layout Plan (see **Appendix A-1 and A-2**) and PGE will complete the dedication as a condition of land use approval.

- C. Public Utility or Communication Facility. Such facilities as a utility substation, water storage tank, radio or television transmitter, tower, tank, power transformer, pumping station and similar structures shall be located, designed and installed with suitable regard for aesthetic values. The base of these facilities shall not be located closer to the property line than a distance equal to the height of the structure. Hydroelectric generation facilities shall not exceed ninety megawatts of generation capacity.*

Response: As noted above, the Code requires that the base of new proposed substation facilities shall not be located closer to the property line than a distance equal to the height of the structure. PGE modified the initially proposed layout of the substation expansion to comply with this code standard. The location of the base of the proposed new structures is shown on the Site Plan (see Note 1 on **Appendix A-1**). The height of the tallest structure is 25 feet, and the base supporting this structure is 26 feet from the closest property line parallel to Main Street. Therefore, the revised site plan submitted with this application meets the specific conditional use standard for a public utility facility.

Chapter 17.62 – Site Plan and Design Review

17.62.050 Standards.

- A. All development shall comply with the following standards:*
- 1. Landscaping. A minimum of fifteen percent of the lot shall be landscaped. Existing native vegetation shall be retained to the maximum extent practicable. All plants listed*

on the Oregon City Nuisance Plant List shall be removed from the site prior to issuance of a final occupancy permit for the building.

Response: The MUD district has a landscape requirement of 10% of the site. Planning staff confirmed that the 10% landscaping requirement trumps the general 15% landscape requirement in the Site Plan and Design Review standards. The subject site (Tax Lots 1500 and 2000) comprises a total of 27,442 square feet. Based on the 10% standard, 2,744 square feet of landscaping is required. As shown on the Landscape Plan (see **Appendix A-5**), the existing evergreen screen hedge to remain and the additional plantings on PGE property to screen the new wall total 5,161 square feet, 18% of the total site area. Therefore, the 10% landscape standard is met.

- a. *Except as allowed elsewhere in the Zoning and Land Division Chapters of this code, all areas to be credited towards landscaping must be installed with growing plant materials. A reduction of up to 25% of the overall required landscaping may be approved by the Community Development Director if the same or greater amount of pervious material is incorporated in the non-parking lot portion of the site plan (pervious material within parking lots are regulated in OCMC 17.52.070) .*

Response: PGE is not requesting a reduction of the overall required landscaping. Therefore, this code provision is not applicable.

- b. *Pursuant to Chapter 17.49, landscaping requirements within the Natural Resource Overlay District, other than landscaping required for parking lots, may be met by preserving, restoring and permanently protecting native vegetation and habitat on development sites.*

Response: Per staff, the subject property is not within the Natural Resource Overlay District. Therefore, this code provision is not applicable to the proposed substation expansion.

- c. *The landscaping plan shall be prepared by a registered landscape architect and include a mix of vertical (trees and shrubs) and horizontal elements (grass, groundcover, etc.) that within 3 years will cover 100% of the Landscape area. No mulch, bark chips, or similar materials shall be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. The Community Development Department shall maintain a list of trees, shrubs and vegetation acceptable for landscaping.*

Response: The Landscape Plan for the proposed substation expansion was prepared by a registered landscape architect (see **Appendix A-5**). The General Layout Plan (see **Appendix A-2**) shows distances between substation equipment and the segment of new wall to property lines. The location of the wall is based on requirements for spacing between equipment inside the wall to maintain all necessary clearances for electrical safety and efficiency.

As shown on **Appendix A-5**, PGE proposes to plant a mix of screen shrubs and accent shrubs outside of the new wall. A portion of the plantings will extend about 5 feet into the unimproved public right-of-way. Based on coordination with staff, the City does not have plans for street improvements along this segment of Main Street within the next 10 years. As suggested by staff, PGE will maintain the groundcover and shrubs in the unimproved public right-of-way between the expanded substation and Main Street.

- d. For properties within the Downtown Design District, or for major remodeling in all zones subject to this chapter, landscaping shall be required to the extent practicable up to the ten percent requirement.*

Response: As noted earlier, the fence around the existing substation is screened by mature evergreen shrubs (arborvitae). As suggested by staff, three varieties of shrubs (screen & accent) will be provided in the 5-10 foot planting area outside of the new wall. While the subject property is not within the Downtown Design District, the existing and proposed landscaping around the substation exceeds the 10% landscaping requirement for the Mixed Use Downtown Zone.

- e. Landscaping shall be visible from public thoroughfares to the extent practicable.*

Response: The proposed landscaping in front of the new wall will be visible from Main Street and 18th Street. **Figure 3** provides a visual simulation of the view of the expanded substation from Main Street with the installation of the 8 foot wall and new plantings.

- f. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum, unless otherwise permitted by the dimensional standards of the underlying zone district.*

Response: The substation facility does not include a parking lot and the Oregon City Code does not require off-street parking for this particular type of use. The substation is monitored remotely and the site is inspected every 45 days. There is adequate area available inside the substation fence/wall to accommodate PGE trucks and equipment. Therefore, the interior parking lot landscaping standards are not applicable to the proposed substation expansion.

2. Vehicular Access and Connectivity

- a. Parking areas shall be located behind buildings, below buildings, or on one or both sides of buildings.*

Response: The existing substation does not include buildings and no buildings or parking areas are associated with the proposed expansion. There is adequate area located inside the substation fence/wall to accommodate PGE vehicles that visit the site on an intermittent basis for inspection purposes. Therefore, this standard is not applicable to the proposed expansion.

- b. *Ingress and egress locations on thoroughfares shall be located in the interest of public safety. Access for emergency services (fire and police) shall be provided.*

Response: As shown on the Site plan (see **Appendix A-1**) there are two existing driveways (gated) that provide access into the substation – one on 17th Street and one on 18th Street. No changes to the existing access locations are proposed. PGE has established protocols with emergency services (fire and police) regarding substation access and protection in the interest of public safety. Therefore, this standard is met. Comments from Clackamas County Fire District #1 are included in **Appendix B-3**.

- c. *Alleys or vehicular access easements shall be provided in the following Districts: R-2, MUC-1, MUC-2, MUD and NC zones unless other permanent provisions for access to off-street parking and loading facilities are approved by the decision-maker. The corners of alley intersections shall have a radius of not less than ten feet.*

Response: The substation has existed at this location for more than 50 years and the subject property has frontage on three streets (17th, 18th and Main). The substation is a low impact use relative to traffic. The substation is monitored remotely and PGE employees typically inspect the substation site every 45 days. There will be no changes to the trip generation or existing access points to the substation and alleys or vehicular access easements are not warranted.

- d. *Sites abutting an alley shall be required to gain vehicular access from the alley unless deemed impracticable by the Community Development Director.*

Response: The substation has frontage and existing driveway access points off of 17th and 18th Streets. No changes to the existing access points are proposed and the subject property does not abut an alley. Therefore, the standard above is not applicable.

- e. *Where no alley access is available, the development shall be configured to allow only one driveway per frontage. On corner lots, the driveway(s) shall be located off of the side street (unless the side street is an arterial) and away from the street intersection. Shared driveways shall be required as needed to accomplish the requirements of this section. The location and design of pedestrian access from the sidewalk shall be emphasized so as to be clearly visible and distinguishable from the vehicular access to the site. Special landscaping, paving, lighting, and architectural treatments may be required to accomplish this requirement*

Response: The existing substation has two driveways located on the side streets (17th & 18th), with no driveways on Main Street. The existing gate to the driveway on 17th Street will be replaced with a new 30 ft wide gate, but there will be no changes to the existing driveways.

- f. Driveways that are at least 24 feet wide shall align with existing or planned streets on adjacent sites.*

Response: There will be no changes to the location or width of the existing driveways on 17th & 18th Streets. Therefore, this standard is not applicable.

- g. Development shall be required to provide existing or future connections to adjacent sites through the use of a vehicular and pedestrian access easements where applicable. Such easements shall be required in addition to applicable street dedications as required in Chapter 12.04.*

Response: This standard is not applicable to the proposed substation expansion. The subject property (Tax Lots 1500 & 2000) has frontage on three streets (17th, 18th & Main) and the only other lot on the block (309 Main Street) also has frontage on two public streets.

- h. Vehicle and pedestrian access easements may serve in lieu of streets when approved by the decision maker only where dedication of a street is deemed impracticable by the city.*

Response: This standard is not applicable to the proposed substation expansion. The subject property has frontage on three public streets and vehicle and pedestrian access easements are not required.

- i. Vehicular and pedestrian easements shall allow for public access and shall comply with all applicable pedestrian access requirements.*

Response: As noted above, there is no need for vehicular and pedestrian easements with the frontage on three public streets and this standard is not applicable to the substation expansion.

- j. In the case of dead-end stub streets that will connect to streets on adjacent sites in the future, notification that the street is planned for future extension shall be posted on the stub street until the street is extended and shall inform the public that the dead-end street may be extended in the future.*

Response: 18th Street is one block long and dead ends at the rail corridor. The proposed substation expansion does not trigger the applicability of standard j above.

- k. Parcels larger than three acres shall provide streets as required in Chapter 12.04. The streets shall connect with existing or planned streets adjacent to the site.*

Response: This standard is not applicable to the proposed substation expansion. The subject property is less than 3 acres and it abuts public streets on three sides.

- l. Parking garage entries shall not dominate the streetscape. They shall be designed and situated to be ancillary to the use and architecture of the ground floor. This standard applies to both public garages and any individual private garages, whether they front on a street or private interior access road.*

Response: This standard is not applicable to the proposed substation expansion. No parking garages are proposed.

- m. Buildings containing above-grade structured parking shall screen such parking areas with landscaping or landscaped berms, or incorporate contextual architectural elements that complement adjacent buildings or buildings in the area. Upper level parking garages shall use articulation or fenestration treatments that break up the massing of the garage and/or add visual interest.*

Response: This standard is not applicable to the proposed substation expansion. No structured parking is proposed.

- 3. Building structures shall be complimentary to the surrounding area. All exterior surfaces shall present a finished appearance. All sides of the building shall include materials and design characteristics consistent with those on the front. Use of inferior or lesser quality materials for side or rear facades or decking shall be prohibited.*

Response: This standard is not applicable to the proposed substation expansion. No buildings are proposed.

- a. Alterations, additions and new construction located within the McLoughlin Conservation District, Canemah National Register District, and the Downtown Design District and when abutting a designated Historic Landmark shall utilize materials and a design that incorporates the architecture of the subject building as well as the surrounding district or abutting Historic Landmark. Historic materials such as doors, windows and siding shall be retained or replaced with in kind materials unless the Community Development Director determines that the materials cannot be retained and the new design and materials are compatible with the subject building, and District or Landmark. The Community Development Director may utilize the Historic Review Board's Guidelines for New Construction (2006) to develop findings to show compliance with this section.*

Response: The Abernethy substation is not located within the McLoughlin Conservation District, the Canemah National Register District or the Downtown Design District. However, the structure at 309 Main Street is a designated Historic Landmark. The existing substation was built on Tax Lot 1500 more than 50 years ago. A mature hedge is located behind the designated historic structure and provides some screening and buffering of the substation use. PGE has communicated with the property owner regarding the proposed expansion and is not aware of any specific issues or concerns. The structure is not occupied as a dwelling, but is currently

used for an office use (counseling). Because no buildings are associated with the proposed substation expansion, it is not feasible to incorporate materials or architecture of the historic structure into the substation facilities. The expansion area will include installation of a new segment of wall and new shrub plantings for visual screening and buffering.

- b. In historic areas and where development could have a significant visual impact, the review authority may request the advisory opinions of appropriate experts designated by the Community Development Director from the design fields of architecture, landscaping and urban planning. The applicant shall pay the costs associated with obtaining such independent professional advice; provided, however, that the review authority shall seek to minimize those costs to the extent practicable.*

Response: The subject property is not within a designated historic district. Additionally, the substation has operated continuously at this location for more than 50 years. The proposed expansion represents a modest increase in the footprint of the utility use and does not represent a significant visual impact relative to existing conditions (see **Figure 3** Visual Simulation).

- 4. Grading shall be in accordance with the requirements of Chapter 15.48 and the public works stormwater and grading design standards.*

Response: The substation site and proposed expansion area are at an approximate elevation of 50 feet MSL and minimal site grading will be required. PGE will comply with stormwater and grading design standards and will obtain appropriate permits, if needed.

- 5. Development subject to the requirements of the Geologic Hazard overlay district shall comply with the requirements of that district.*

Response: The subject property is not within the boundary of the Geologic Hazard overlay district. Therefore, the requirements of that district are not applicable to the proposed substation expansion.

- 6. Drainage shall be provided in accordance with city's drainage master plan, Chapter 13.12, and the public works stormwater and grading design standards.*

Response: As noted above, minimal grading will be required for the proposed expansion of the substation. The area inside of the substation fence/wall is gravel and does not include new impervious area. As noted in the Pre-Application comments from the City Engineer (see **Appendix B-2**), it appears that stormwater quantity and quality control will not be required.

- 7. Parking, including carpool, vanpool and bicycle parking, shall comply with city off-street parking standards, Chapter 17.52.*

Response: Chapter 17.52 does not specify off-street parking standards for public utility uses such as a substation. There is sufficient area available within the substation fence/wall to accommodate PGE vehicles. Following completion of the construction work associated with the expansion, there will be minimal traffic or related parking associated with the substation use.

8. *Sidewalks and curbs shall be provided in accordance with the city's transportation master plan and street design standards. Upon application, the Community Development Director may waive this requirement in whole or in part in those locations where there is no probable need, or comparable alternative location provisions for pedestrians are made.*

Response: There are existing sidewalks and curbs along the public streets fronting the subject property (17th, 18th and Main Streets). As noted in the Pre-Application comments from the City Engineer (see **Appendix B-2**), given the very low traffic impact associated with the substation expansion and the existing sidewalk and curb improvements, no additional improvements are warranted.

9. *A well-marked, continuous and protected on-site pedestrian circulation system meeting the following standards shall be provided:*
 - a. *Pathways between all building entrances and the street are required. Pathways between the street and buildings fronting on the street shall be direct. Exceptions may be allowed by the Director where steep slopes or protected natural resources prevent a direct connection or where an indirect route would enhance the design and/or use of a common open space.*
 - b. *The pedestrian circulation system shall connect all main entrances on the site. For buildings fronting on the street, the sidewalk may be used to meet this standard. Pedestrian connections to other areas of the site, such as parking areas, recreational areas, common outdoor areas, and any pedestrian amenities shall be required.*
 - c. *Elevated external stairways or walkways that provide pedestrian access to multiple dwelling units located above the ground floor of any building are prohibited. The Community Development Director may allow exceptions for external stairways or walkways located in, or facing interior courtyard areas provided they do not compromise visual access from dwelling units into the courtyard.*
 - d. *The pedestrian circulation system shall connect the main entrances of adjacent buildings on the same site.*
 - e. *The pedestrian circulation system shall connect the principal building entrance to those of buildings on adjacent commercial and residential sites where practicable. Walkway linkages to adjacent developments shall not be required within industrial developments or to industrial developments or to vacant industrially-zoned land.*
 - f. *On-site pedestrian walkways shall be hard surfaced, well drained and at least five feet wide. Surface material shall contrast visually to adjoining surfaces. When*

bordering parking spaces other than spaces for parallel parking, pedestrian walkways shall be a minimum of seven feet in width unless curb stops are provided. When the pedestrian circulation system is parallel and adjacent to an auto travel lane, the walkway shall be raised or separated from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised walkway is used, the ends of the raised portions shall be equipped with curb ramps for each direction of travel. Pedestrian walkways that cross drive isles or other vehicular circulation areas shall utilize a change in textual material or height to alert the driver of the pedestrian crossing area.

Response: The standards relating to on-site pedestrian improvements are not relevant to the proposed substation expansion. The substation use does not include buildings and no employees are based at the facility. Additionally, the subject property is bounded by public streets with existing sidewalks on three sides.

10. *There shall be provided adequate means to ensure continued maintenance and necessary normal replacement of private common facilities and areas, drainage ditches, streets and other ways, structures, recreational facilities, landscaping, fill and excavation areas, screening and fencing, groundcover, garbage storage areas and other facilities not subject to periodic maintenance by the city or other public agency.*

Response: There are no common facilities, recreational facilities, garbage storage areas or other storage areas associated with the on-going operation of the Abernethy substation. PGE will maintain the landscaping around the perimeter of the substation and will also maintain the new shrubs and lawn/ground cover in the unimproved right-of-way between Main Street and the new wall.

11. *Site planning shall conform to the requirements of OCMC Chapter 17.41 Tree Protection*

Response: See responses under Chapter 17.41, starting on page 39.

12. *Development shall be planned, designed, constructed and maintained to protect water resources and habitat conservation areas in accordance with the requirements of the city's Natural Resources Overlay District, Chapter 17.49, as applicable.*

Response: The subject property is not located within the Natural Resources Overlay District. Therefore, this standard is not applicable to the proposed substation expansion.

13. *All development shall maintain continuous compliance with applicable federal, state, and city standards pertaining to air and water quality, odor, heat, glare, noise and vibrations, outdoor storage, radioactive materials, toxic or noxious matter, and electromagnetic interference. Prior to issuance of a building permit, the Community Development Director or building official may require submission of evidence*

demonstrating compliance with such standards and receipt of necessary permits. The review authority may regulate the hours of construction or operation to minimize adverse impacts on adjoining residences, businesses or neighborhoods. The emission of odorous gases or other matter in such quantity as to be readily detectable at any point beyond the property line of the use creating the odors or matter is prohibited.

Response: PGE will continue to maintain compliance with all applicable federal, state and city environmental performance standards. The substation does not require an air quality permit from DEQ for either a direct or indirect source discharge. The substation facility does not result in emissions to the air. The substation does not generate odors, heat or glare. The substation use does not involve the storage, transportation, or disposal of hazardous materials under current standards. PCB's are no longer used in transformers. PGE will prepare and file an oil spill containment plan to comply with DEQ standards potentially associated with an on-site spill of the small amounts of mineral oil used in transformers. PGE can comply with DEQ noise standards. Transformers are the only source of continuous sound generation in an electric utility substation. The 2nd transformer for this facility is designed and manufactured to minimize noise generation. The transformer has internal automatic settings that adjust as load requirements on the transformer increase. During normal operations the settings are lower and generate far less than 64dBA within 3 feet of the transformer tank.

14. *Adequate public water and sanitary sewer facilities sufficient to serve the proposed or permitted level of development shall be provided. The applicant shall demonstrate that adequate facilities and services are presently available or can be made available concurrent with development. Service providers shall be presumed correct in the evidence, which they submit. All facilities shall be designated to city standards as set out in the city's facility master plans and public works design standards. A development may be required to modify or replace existing offsite systems if necessary to provide adequate public facilities. The city may require over sizing of facilities where necessary to meet standards in the city's facility master plan or to allow for the orderly and efficient provision of public facilities and services. Where over sizing is required, the developer may request reimbursement from the city for over sizing based on the city's reimbursement policy and fund availability, or provide for recovery of costs from intervening properties as they develop.*

Response: The Abernethy substation is not connected to and does not require public water or sewer facilities. See comments from the City Engineer in **Appendix B-2**.

15. *Adequate right-of-way and improvements to streets, pedestrian ways, bike routes and bikeways, and transit facilities shall be provided and be consistent with the city's transportation master plan and design standards and this title. Consideration shall be given to the need for street widening and other improvements in the area of the proposed development impacted by traffic generated by the proposed development. This shall include, but not be limited to, improvements to the right-of-way, such as installation of lighting, signalization, turn lanes, median and parking strips, traffic*

islands, paving, curbs and gutters, sidewalks, bikeways, street drainage facilities and other facilities needed because of anticipated vehicular and pedestrian traffic generation. Compliance with 12.04 - Streets, Sidewalks and Public Places shall be sufficient to achieve right-of-way and improvement adequacy.

Response: The proposed expansion of the substation does not trigger requirements for public improvements. See comments from City Engineer in **Appendix B-2**. The public streets along the frontages of the subject property are currently improved as follows:

Main Street: 2 travel lanes, bike lanes, curb & gutter, 5 ft curb tight sidewalk

17th Street: 2 travel lanes, curb & gutter, 5 ft curb tight sidewalk

18th Street: 2 travel lanes, curb & gutter, 4 ft planter strip, 4 ft sidewalk

PGE will dedicate right of way near the intersection 18th & Main Street to provide a total of 40 ft from the center line of Main Street as shown on **Appendix A-1** to accommodate potential future streetscape improvements by the City.

16. *If a transit agency, upon review of an application for an industrial, institutional, retail or office development, recommends that a bus stop, bus turnout lane, bus shelter, accessible bus landing pad, lighting, or transit stop connection be constructed, or that an easement or dedication be provided for one of these uses, consistent with an agency adopted or approved plan at the time of development, the review authority shall require such improvement, using designs supportive of transit use. Improvements at a major transit stop may include intersection or mid-block traffic management improvements to allow for crossings at major transit stops, as identified in the Transportation System Plan.*

Response: TriMet does not currently provide transit service along Main Street north of the Oregon City Transit Center. Therefore, the standard providing the option for Tri Met to request transit improvements is not applicable to the proposed substation expansion.

17. *All utility lines shall be placed underground.*

Response: Improvements to the feeder lines into the Abernethy substation and distribution lines out of the substation are not subject to land use review, but rather are regulated by PGE's franchise agreement with Oregon City. Therefore, this standard is not applicable to the proposed substation expansion.

18. *Access and facilities for physically handicapped people shall be incorporated into the site and building design consistent with applicable federal and state requirements, with particular attention to providing continuous, uninterrupted access routes.*

Response: The standards relating to ADA access are not applicable to the proposed substation expansion.

19. *For a residential development, site layout shall achieve at least eighty percent of the maximum density of the base zone for the net developable area. Net developable area excludes all areas for required right-of-way dedication, land protected from development through Natural Resource or Geologic Hazards protection, and required open space or park dedication.*

Response: This standard is not applicable to the proposed substation expansion.

20. *Screening of Mechanical Equipment:*

- a. *Rooftop mechanical equipment, including HVAC equipment and utility equipment that serves the structure, shall be screened. Screening shall be accomplished through the use of parapet walls or a sight-obscuring enclosure around the equipment constructed of one of the primary materials used on the primary facades of the structure, and that is an integral part of the building's architectural design. The parapet or screen shall completely surround the rooftop mechanical equipment to an elevation equal to or greater than the highest portion of the rooftop mechanical equipment being screened. In the event such parapet wall does not fully screen all rooftop equipment, then the rooftop equipment shall be enclosed by a screen constructed of one of the primary materials used on the primary facade of the building so as to achieve complete screening.*
- b. *Wall-mounted mechanical equipment shall not be placed on the front facade of a building or on a facade that faces a right-of-way. Wall-mounted mechanical equipment, including air conditioning or HVAC equipment and groups of multiple utility meters, that extends six inches or more from the outer building wall shall be screened from view from streets; from residential, public, and institutional properties; and from public areas of the site or adjacent sites through the use of (a) sight-obscuring enclosures constructed of one of the primary materials used on the primary facade of the structure, (b) sight-obscuring fences, or (c) trees or shrubs that block at least 80 percent of the equipment from view or (d) painting the units to match the building. Wall-mounted mechanical equipment that extends six inches or less from the outer building wall shall be designed to blend in with the color and architectural design of the subject building.*
- c. *Ground-mounted above-grade mechanical equipment shall be screened by ornamental fences, screening enclosures, trees, or shrubs that block at least 80 percent of the view. Placement and type of screening shall be determined by the Community Development Director.*
- d. *All mechanical equipment shall comply with the standards in this section. If mechanical equipment is installed outside of the Site Plan and Design Review process, planning staff shall review the plans to determine if additional screening*

is required. If the proposed screening meets this section, no additional Planning review is required.

- e. *This section shall not apply to the installation of solar energy panels, photovoltaic equipment or wind power generating equipment.*

Response: The standards relating to screening of roof and wall mounted mechanical equipment are not applicable to the proposed substation expansion. The existing substation equipment, while visible, is screened up to about 10 feet from ground level by a continuous evergreen shrub. PGE proposes to construct an 8-foot wall along the west and north sides of the proposed expansion. A mix of vertical and horizontal shrubs will be planted along the outside perimeter of the new wall. See Landscape Plan in **Appendix A-5** and photo simulation in **Figure 3**.

21. Building Materials

- a. *Preferred building materials. Building exteriors shall be constructed from high quality, durable materials. Preferred exterior building materials that reflect the City's desired traditional character are as follows:*
 - i. *Brick.*
 - ii. *Basalt stone or basalt veneer*
 - iii. *Narrow horizontal wood or composite siding (generally 5 inches wide or less); wider siding will be considered where there is a historic precedent.*
 - iv. *Board and baton siding*
 - v. *Other materials subject to approval by the Community Development Director.*
 - vi. *Plywood with battens or fiber/composite panels with concealed fasteners and contiguous aluminum sections at each joint that are either horizontally or vertically aligned.*
 - vii. *Stucco shall be trimmed in wood, masonry, or other approved materials and shall be sheltered from extreme weather by roof overhangs or other methods.*

Response: The proposed substation expansion does not include buildings. Therefore, the standards relating to preferred building materials are not applicable.

- b. *Prohibited materials. The following materials shall be prohibited in visible locations unless an exception is granted by the Community Development Director based on the integration of the material into the overall design of the structure.*
- i. *Vinyl or plywood siding (including T-111 or similar plywood).*
 - ii. *Glass block or highly tinted, reflected, translucent or mirrored glass (except stained glass) as more than 10 percent of the building façade*
 - iii. *Corrugated fiberglass.*
 - iv. *Chain link fencing (except for temporary purposes such as a construction site or as a gate for a refuse enclosure).*
 - v. *Crushed colored rock/crushed tumbled glass.*
 - vi. *Non-corrugated and highly reflective sheet metal.*

Response: The existing substation on Tax Lot 2000 is enclosed by 8 foot chain link fence topped by 3 strands of barbed wire. A mature arborvitae hedge provides some screening of views into the existing substation. In the July 2, 2015 submittal, PGE proposed to use black chain link fence topped by 3 strands of barbed wire for the proposed expansion abutting Main Street (west) and 18th Street (north). PGE proposed to plant a different type of shrub (Mexican Orange) in front of the new fence.

During the completeness review, staff indicated that the proposal to use chain link fencing would require an additional variance application, findings and a supplemental fee because chain link fencing is a prohibited material. Staff also communicated that they were unlikely to recommend approval of such a variance. Therefore, PGE has revised the initial submittal to substitute an 8-foot wall (brick look) for the chain link fence along the Main and 18th Street frontages of the proposed expansion. PGE has installed a similar type of wall (although taller at 12 feet) around the Stephenson Substation across from OMSI in Southeast Portland. The same type of wall (also at 12 feet) will be installed along the primary street elevation of the new Marquam Substation south of downtown Portland.

PGE did not feel that a 12-foot wall would be appropriate for the Abernethy Substation in Oregon City and a wall over 8 feet would require approval of a variance. For safety and security reasons, PGE proposes to install 3 strands of barbed wire along the inside of the wall, angled internal to the substation. However, the barbed wire will not be visible to the public along the street frontages and it is intended to provide barriers to climbing or other unauthorized entry.

Figure 3 provides a photo of existing conditions along with a photo simulation of the proposed expansion with the new wall and plantings.

- c. *Special material standards: The following materials are allowed if they comply with the requirements found below:*
- i. *Concrete block. When used for the front façade of any building, concrete blocks shall be split, rock- or ground-faced and shall not be the prominent material of the elevation. Plain concrete block or plain concrete may be used as foundation material if the foundation material is not revealed*

more than 3 feet above the finished grade level adjacent to the foundation wall.

- ii. Metal siding. Metal siding shall have visible corner moldings and trim and incorporate masonry or other similar durable/permanent material near the ground level (first two feet above ground level).*
- iii. Exterior Insulation and Finish System (EIFS) and similar troweled finishes shall be trimmed in wood, masonry, or other approved materials and shall be sheltered from extreme weather by roof overhangs or other methods.*
- iv. Building surfaces shall be maintained in a clean condition and painted surfaces shall be maintained to prevent or repair peeling, blistered or cracking paint.*

Response: The special material standards listed above apply to buildings are not relevant to the proposed substation expansion. As shown in **Figure 3**, the new wall, while made of concrete, will have the appearance of brick and will include articulation with vertical “posts.” PGE has used this same type of wall around other substations in urbanized settings.

17.62.065 - Outdoor lighting.

B. Applicability

2. Lighting Plan Requirement

All commercial, industrial, mixed-use, cottage housing and multi-family developments shall submit a proposed exterior lighting plan. The plan must be submitted concurrently with the site plan. The exterior lighting plan shall include plans and specifications for streetlights, parking lot lights, and exterior building lights. The specifications shall include details of the pole, fixture height and design, lamp type, wattage, and spacing of lights.

Response: A lighting plan is included in **Appendix A-4**. The plan shows the location and specifications for three existing light poles to be removed, one new light pole to be added, and two additional lights to be added on electrical structures. Note 1 on the plan identifies the activity lights that are controlled by a switch at the gate and are only used when required for an emergency or other special purpose. The background lights are photocell controlled.

3. *Excepted Lighting*

The following types of lighting are excepted from the requirements of this Section.

- a. *Residential lighting for single-family attached and detached homes, and duplexes.*
- b. *Public street and right-of-way lighting.*
- c. *Temporary decorative seasonal lighting provided that individual lamps have a light output of 60 watts or less.*
- d. *Temporary lighting for emergency or nighttime work and construction.*
- e. *Temporary lighting for theatrical, television, and performance areas, or for special public events.*
- f. *Lighting for a special district, street, or building that, according to an adopted municipal plan or ordinance, is determined to require special lighting aesthetics as part of its physical character.*
- g. *Lighting required and regulated by the Federal Aviation Administration.*

Response: The activity lights that are controlled by a switch inside the gates are only used for emergency or nighttime work. These fixtures are noted with LG on the Lighting Plan.

- C. *General Review Standard. If installed, all exterior lighting shall meet the functional security needs of the proposed land use without adversely affecting adjacent properties or the community. For purposes of this Section, properties that comply with the design standards of Subsection D below shall be deemed to not adversely affect adjacent properties or the community.*

Response: PGE's exterior lighting of substations is designed to meet the security needs of the utility use without adversely affecting adjacent properties or the community. Illumination contours are shown on the Lighting Plan to document compliance with the standards of Subsection D below.

D. *Design and Illumination Standards*
General Outdoor Lighting Standard and Glare Prohibition

1. *Outdoor lighting, if provided, shall be provided in a manner that enhances security, is appropriate for the use, avoids adverse impacts on surrounding properties, and the night sky through appropriate shielding as defined in this section. Glare shall not cause illumination on other properties in excess of a measurement of 0.5 foot-candles of light as measured at the property line. In no case shall exterior lighting add more than 0.5 foot-candle to illumination levels at any point off-site. Exterior lighting is not required except for purposes of public safety. However, if installed, all exterior lighting shall meet the following design standards:*

Response: As shown on **Appendix A-4**, the proposed substation lighting does not cause illumination on other properties in excess of 0.5 foot-candles as measured at the property line.

2. *Any light source or lamp that emits more than 900 lumens (13 watt compact fluorescent or 60 watt incandescent) shall be concealed or shielded with a full cut-off style fixture in order to minimize the potential for glare and unnecessary diffusion on adjacent property. All fixtures shall utilize one of the following bulb types: metal halide, induction lamp, compact fluorescent, incandescent (including tungsten-halogen), or high pressure sodium with a color rendering index above 70.*

Response: PGE prepared the Lighting Plan to comply with all of the light standards in the Code. Details for light fixtures are included on **Appendix A-3** and **A-4**.

3. *The maximum height of any lighting pole serving a multi-family residential use shall be 20 feet. The maximum height serving any other type of use shall be 25 feet, except in parking lots larger than five acres, the maximum height shall be 35 feet if the pole is located at least 100 feet from any residential use.*

Response: As shown on **Appendix A-4**, the new light pole that is centrally located in the substation is 25 ft tall. The other new lights will be installed on the substation structures that are 20 ft and 25 ft tall. Therefore, the proposed lighting complies with the maximum height for lighting poles.

4. *Lighting levels*

Table 1-17.62.065. Foot-candle Levels

Location	Min	Max	Avg
Pedestrian Walkways	0.5	7:1 max/min ratio	1.5
Pedestrian Walkways in Parking Lots		10:1 max/min ratio	0.5
Pedestrian Accessways	0.5	7:1 max/min ratio	1.5
Building Entrances	3		
Bicycle Parking Areas	3		
Abutting property	N/A	.05	

Response: The Design and Illumination Standards in D.1 (on previous page) specify a maximum illumination level of 0.5 as measured at any property level. The Lighting Plan shows compliance with this standard. We assume that the .05 referenced in Table 1-17.62.065 above is a typo, and the decimal is intended to be placed as 0.5.

5. *Parking lots and other background spaces shall be illuminated as unobtrusively as possible while meeting the functional needs of safe circulation and protection of people and property. Foreground spaces, such as building entrances and outside seating areas, shall utilize pedestrian scale lighting that defines the space without glare.*

Response: This standard applies to parking lots and is not applicable to the proposed substation expansion.

6. *Any on-site pedestrian circulation system shall be lighted to enhance pedestrian safety and allow employees, residents, customers or the public to use the walkways at night. Pedestrian walkway lighting through parking lots shall be lighted to light the walkway and enhance pedestrian safety pursuant to Table 1.*

Response: The proposed substation expansion does not include an on-site pedestrian circulation system. Therefore, this standard is not applicable.

7. *Pedestrian Accessways. To enhance pedestrian and bicycle safety, pedestrian accessways required pursuant to OCMC 12.28 shall be lighted with pedestrian-scale lighting. Accessway lighting shall be to a minimum level of one-half foot-candles, a one and one-half foot-candle average, and a maximum to minimum ratio of seven-to-one and shall be oriented not to shine upon adjacent properties. Street lighting shall be provided at both entrances. Lamps shall include a high-pressure sodium bulb with an unbreakable lens.*

Response: This standard is not applicable to the proposed substation expansion.

8. *Floodlights shall not be utilized to light all or any portion of a building facade between 10:00 pm and 6:00 am.*

Response: This standard is not applicable to the proposed substation expansion. Activity lights will only be used for emergencies when the switch is turned on inside the substation gates.

9. *Lighting on automobile service station, convenience store, and other outdoor canopies shall be fully recessed into the canopy and shall not protrude downward beyond the ceiling of the canopy.*

Response: This standard is not applicable to the proposed substation expansion.

10. *The style of light standards and fixtures shall be consistent with the style and character of architecture proposed on the site.*

Response: This standard is not applicable to the proposed substation expansion. The lighting plan uses standard PGE fixtures associated with substations and safety. This is not an architectural style fixture since it's for substation background and task lighting functions.

11. *In no case shall exterior lighting add more than 1 foot-candle to illumination levels at any point off-site.*

Response: There is some internal inconsistency in the code standards for lighting. However, the Lighting Plan has been prepared assuming the more conservative 0.5 foot-candle standard at any property line rather than the 1 foot-candle standard referenced above.

12. *All outdoor light not necessary for security purposes shall be reduced, activated by motion sensor detectors, or turned off during non-operating hours.*

Response: PGE's standard operating procedures comply with this standard. The background lights will be controlled by photocells and the activity lights will only be used if activated by a switch inside the gates and needed for emergency or maintenance purposes.

13. *Light fixtures used to illuminate flags, statues, or any other objects mounted on a pole, pedestal, or platform shall use a narrow cone beam of light that will not extend beyond the illuminated object.*

Response: This standard is not applicable to the proposed substation expansion.

14. *For upward-directed architectural, landscape, and decorative lighting, direct light emissions shall not be visible above the building roofline.*

Response: This standard is not applicable to the proposed substation expansion.

15. *No flickering or flashing lights shall be permitted, except for temporary decorative seasonal lighting.*

Response: This standard is not applicable to the proposed substation expansion.

16. *Wireless Sites. Unless required by the Federal Aviation Administration or the Oregon Aeronautics Division, artificial lighting of wireless communication towers and antennas shall be prohibited. Strobe lighting of Wireless Communication facilities is prohibited unless required by the Federal Aviation Administration. Security lighting for equipment shelters or cabinets and other on-the-ground auxiliary equipment on Wireless Communication Facilities shall be initiated by motion detecting lighting.*

Response: This standard is not applicable to the proposed substation expansion.

17. *Lighting for outdoor recreational uses such as ball fields, playing fields, tennis courts, and similar uses, provided that such uses comply with the following standards:*
- i. *Maximum permitted light post height: 80 feet.*
 - ii. *Maximum permitted illumination at the property line: 0.5 foot-candles.*

Response: This standard is not applicable to the proposed substation expansion.

Chapter 17.41 – Tree Protection

17.41.060 - Tree removal and replanting—Mitigation (Option 1).

- A. Applicants for development who select this option shall ensure that all healthy trees shall be preserved outside the construction area as defined in Chapter 17.04 to the extent practicable. Compliance with these standards shall be demonstrated in a tree mitigation plan report prepared by a certified arborist, horticulturalist or forester or other environmental professional with experience and academic credentials in forestry or arboriculture. At the applicant's expense, the city may require the report to be reviewed by a consulting arborist. The number of replacement trees required on a development site shall be calculated separately from, and in addition to, any public or street trees in the public right-of-way required under section 12.08—Community Forest and Street Trees.
- B. The applicant shall determine the number of trees to be mitigated on the site by counting all of the trees six inch DBH (minimum four and one-half feet from the ground) or larger on the entire site and either:
1. Trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2; or
 2. Diseased or hazardous trees, when the condition is verified by a certified arborist to be consistent with the definition in Section 17.04.1360, may be removed from the tree replacement calculation. Regulated healthy trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Regulated healthy trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2.

Table 17.41.060-1
Tree Replacement Requirements

Size of tree removed (DBH)	Column 1	Column 2
	Number of trees to be planted. (If removed Outside of construction area)	Number of trees to be planted. (If removed Within the construction area)
6 to 12"	3	1
13 to 18"	6	2
19 to 24"	9	3
25 to 30"	12	4
31 and over"	15	5

Response: There are two existing trees on the subject property that need to be removed to accommodate the expansion of the substation. The location of the two trees, a 42" dbh Cherry tree and 18" dbh Hawthorn, is shown on the Site Plan (see **Appendix A-1**) and the condition of the trees is described in the arborist report included in **Appendix E-1**. Neither tree is identified as a heritage tree. Both of the trees are located within the construction area for the substation expansion (inside of the wall).

The Hawthorn tree is a multi stem tree with two of the three stems removed. The remaining stem is growing to the west and has a heavy lean toward the sidewalk along Main Street with no counterbalance due to the prior cutting of two stems. The previously cut stumps are showing signs of decay.

The Cherry tree is very large and mature. The tree looks to be in fair health overall for its size, but with strong evidence of heartwood decay. A Cherry tree of this maturity can be highly prone to large limb or trunk failure due to the amount of trunk decay.

Given the minimal area that will be available outside of the new wall to accommodate planting new trees, PGE proposes to pay a fee in lieu of planting to mitigate for the removal of the two trees as authorized by 17.41.1. Based on the size of the two trees to be removed within the construction area, the in lieu fee is estimated at \$2,121 (code replacement requirement of 7 trees X \$303 per tree). PGE will pay the in lieu fee as a condition of approval to meet the requirements of Chapter 17.41.

17.41.130 - Regulated tree protection procedures during construction.

- A. *No permit for any grading or construction of public or private improvements may be released prior to verification by the community development director that regulated trees designated for protection or conservation have been protected according to the following standards. No trees designated for removal shall be removed without prior written approval from the community development director.*

Response: There are four existing trees planted on PGE property to the south side of the existing substation abutting 17th Street (see Landscape Plan). The initial application submitted on July 2, 2015 proposed a new underground utility line extending out of the substation in proximity to these four trees. To avoid removal or disturbance of these existing trees, PGE has revised the plan to shift the location of the underground utility line further east (see **Appendix A-2, General Layout**).

There is another existing tree within the public right-of-way near the corner of Main and 18th Street. This tree is located well outside of the construction area and will not be disturbed. PGE will install appropriate tree protection fencing around the five existing trees as required by Chapter 17.41.

Chapter 17.54 – Supplemental Regulations and Exceptions

17.54.100 – Fences.

A. *Generally. Fence, hedge, or wall.*

- 1. Fences and walls—Fences and walls over forty-two inches shall not be located in front of the front façade or within forty feet of the public right-of-way, whichever is less. All other fences (including fences along the side and rear of a property) shall not exceed six feet in total height unless as permitted [in] Section 17.54.100.B.*
- 2. Hedges shall not be more than forty-two inches in the underlying front yard setback. Individual plants and trees taller than forty-two inches tall may be permitted provided there is at least one foot clearance between each plant.*
- 3. Property owners shall ensure compliance with the traffic sight obstruction requirements in Chapter 10.32 of the Oregon City Municipal Code.*
- 4. It is unlawful for any person to erect any electric fence or any fence constructed in whole or in part of barbed wire or to use barbed wire, except as erected in connection with security installations at a minimum height of six feet, providing further that prior written approval has been granted by the city manager.*

Response: As shown in the plans in Appendix A, PGE is proposing to construct an 8-foot tall wall along the street frontages of the proposed expansion (per subsection B.4 below). The wall will have the appearance of brick and will provide some articulation with vertical posts. PGE has installed this type of wall along visible street frontages of other substations in urban settings. For security and safety reasons, PGE must construct a minimum 8-foot high wall to deter unauthorized entry into the substation. PGE will install three strands of barbed wire on the inside of the top of the wall, angled toward the substation. The barbed wire will not be visible from Main Street. While the code above states that “prior written approval” shall be granted by the city manager, staff has indicated that the proposed use of barbed wire will be considered as part of the Planning Commission public hearing and decision on the Conditional Use/Site & Design Review.

B. *Exception. Fence, hedge, wall, or other obstructing vegetation on retaining wall. When a fence, hedge, wall, or other obstructing vegetation is built on a retaining wall or an artificial berm that is not adjacent to or abutting a public right-of-way, the following standards shall apply:*

- 1. When the retaining wall or artificial berm is thirty inches or less in height from the finished grade, the maximum fence or wall height on top of the retaining wall shall be six feet.*
- 2. When the retaining wall or earth berm is greater than thirty inches in height, the combined height of the retaining wall and fence or, wall from finished grade shall not exceed eight and one-half feet.*
- 3. Fences, hedges or walls located on top of retaining walls or earth berms in excess of eight and one-half feet in height shall be set back a minimum of two feet from the*

edge of the retaining wall or earth berm below and shall not exceed a combined height of eight and one-half feet.

- 4. An alternative height or location requirement may be approved within a land use process for all non-single-family and two-family residential properties. The fence, hedge or wall shall be compatible with the adjacent neighborhood and achieve the same intent of the zoning designation and applicable site plan and design review process. In no case may the fence, hedge or wall exceed eight feet in height without approval of a variance.*

Response: As allowed by subsection B.4 above, PGE is requesting approval of the 8-foot wall along the 18th and Main Street frontages of the proposed substation expansion. Staff indicated that the proposed 8-foot wall will be considered by the Planning Commission as part of the Conditional Use/Site & Design Review and a separate variance approval is not required. Installation of the wall and new plantings along the street frontages of the expanded substation will be compatible with the existing and anticipated character of the Mixed Use District north of Downtown Oregon City. While PGE has installed 12-foot high walls at other substations, PGE has concluded that an 8-foot wall provides adequate security and safety and is more compatible with the location and characteristics of the Abernethy substation.

Chapter 17.58 – Lawful Nonconforming Uses, Structures and Lots

17.58.010 Purpose.

Nonconforming situations are created when the application of zoning district to a site changes or the zoning regulations change. As part of the change, existing uses, density, or development might no longer be allowed or are further restricted. Nonconforming uses, structures and lots are those uses, structures and lots that were lawfully established but do not conform to the provisions of this title or the provisions of the zoning district in which the use, structure or lot is located. The intent of these provisions is not to force all non-conforming situations immediately to be brought into conformance. Instead, the intent is to guide nonconforming situations in a new direction consistent with City policy, and, eventually, bring them into conformance.

17.58.015 Applicability.

The regulations of this chapter apply only to those nonconforming situations that were lawfully established or that were approved through a land use decision. All nonconforming structures, uses or lots shall have been maintained over time. These situations have lawful nonconforming status. Nonconforming situations that were not allowed when established or have not been maintained over time have no lawful right to continue.

Response: PGE built the Abernethy substation in the late 1950's. According to staff, Oregon City did not adopt a zoning ordinance until 1953. There is no record of a land use permit for the existing substation. The north downtown area was zoned for Industrial use until 2004. Public utilities, including substations, were listed as a permitted use in the Industrial zone. Oregon City changed the comprehensive plan and zoning designations for the downtown, and much of the north downtown, to Mixed Use Downtown (MUD) in 2004. Public utility uses are listed as a conditional use in the MUD zone.

17.58.030 Lawful Nonconforming Use.

A use that was lawfully established on a particular development site but that no longer complies with the allowed uses or the standards for those uses in this title may be considered a lawful nonconforming use. Change of ownership, tenancy, or management of a lawfully established nonconforming use shall not affect its lawful nonconforming status. The continuation of a lawful nonconforming use is subject to the following:

- A. Discontinuance. If a lawful nonconforming use is discontinued for a period of one year, it shall lose its lawful nonconforming status and the use of the property thereafter shall conform with the existing provisions of this title. If a nonconforming use ceases operations, even if the structure or materials related to the use remain, the use shall be deemed to have been discontinued.*
- B. Conformance. If a lawful nonconforming use is converted to a conforming use, no nonconforming use may be resumed.*
- C. Destruction of a Non-Residential Use. When a structure containing a lawful nonconforming non-residential use is damaged by fire or other causes, the re-establishment of the nonconforming use shall be prohibited if the repair cost of the structure is more than 60 percent of its assessed value.*
- D. Destruction of a Residential Use. When a structure containing a lawful nonconforming residential use is damaged by fire or other causes, the re-establishment of the nonconforming use shall be permitted.*
- E. Intentional Destruction. When a structure containing a nonconforming use is removed or intentionally damaged by fire or other causes within the control of the owner, the re-establishment of the nonconforming use shall be prohibited.*
- F. Expansion. No lawful nonconforming use may be replaced by a different type of nonconforming use, nor may any legal nonconforming use be expanded or intensified.*

Response: The existing substation is considered a legal nonconforming use in the MUD zone. Under subsection F above, no legal nonconforming use may be expanded or intensified. Therefore, the proposed expansion of the Abernethy substation onto Tax Lot 2000 is not authorized by the code. PGE is submitting this application to request approval of the substation use as a conditional use in the MUD zone. If the Planning Commission approves the conditional use permit, the existing and expanded substation will no longer be considered a legal nonconforming use.

It is interesting to note that adoption of the MUD in 2004 included specific provisions for intensification of industrial uses on four tax lots. As shown on **Figure 2**, three of the tax lots are located in proximity to the substation.

17.58.060 Process to Confirm the Legality of a Nonconforming Use, Lot or Structure.

Any person may request a Type I or a Type II review to confirm the legality of a nonconforming use, lot or structure. In order to confirm that the nonconforming use, lot or structure is legal, sufficient evidence shall be submitted to the City determining the following:

- A. *The nonconforming use or structure was established lawfully; and*
- B. *The nonconforming use or structure has not become more nonconforming within the past 20 years from the date of application.*

The applicant shall provide sufficient evidence to allow the Community Development Director to review and confirm the legality of a nonconforming use, lot or structure. An applicant may request a Type I procedure, provided the applicant can provide sufficient evidence to confirm 17.58.060.A and B without discretion. If the applicant cannot provide sufficient evidence to determine 17.58.060.A and B without discretion, the applicant may apply for a Type II procedure. Applications for Type II procedures shall be noticed to the public in a public comment period to gather additional information. If the applicant cannot show that the nonconforming use, lot or structure was lawfully established or has not been expanded pursuant to 17.58.060 A and B above, the use, lot or structure shall be determined to be illegal.

Response: PGE submitted deeds to document that the existing substation property was purchased in 1958. The substation was constructed shortly after the initial purchase and has operated continuously since that time. Since PGE is proceeding with the conditional use/site plan/design review application, staff has not requested any other evidence to document the legality of the nonconforming use.

IV. SUMMARY

Based on the information contained in this narrative and the plans and other materials submitted with the application, PGE encourages Oregon City Planning Commission approval of the Type III conditional use permit/site plan/design review application for the proposed expansion of the Abernethy substation.

The substation expansion is needed to upgrade facilities to accommodate anticipated growth and to relieve transformer loading issues at the Abernethy and Mt Pleasant substations. The existing substation has operated at this location for more than 50 years and the modest expansion can be accommodated with minimal impact on surrounding properties.

Appendix A Plan Set

A-1 Site Plan

A-2 General Layout

A-3 Outdoor Lighting

A-4 Lighting Plan

A-5 Landscape Plan

ABERNETHY SUBSTATION
306 18TH ST, OREGON CITY, OR 97045
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 29,
TOWNSHIP 2 SOUTH, RANGE 2 EAST,
WILLAMETTE MERIDIAN, CITY OF OREGON CITY,
CLACKAMAS COUNTY, OREGON

BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 2; THENCE WESTERLY ALONG THE SOUTHERLY BOUNDARY OF SAID LOT 2 14.7 FEET, MORE OR LESS, TO THE EAST RIGHT-OF-WAY LINE OF MAIN STREET, A VARIABLE-WIDTH ROAD; THENCE NORTHERLY ALONG SAID EAST RIGHT-OF-WAY LINE TO THE NORTHERLY BOUNDARY OF SAID LOT 2; THENCE EASTERLY ALONG SAID NORTH BOUNDARY 22.0 FEET, MORE OR LESS, TO THE EASTERLY BOUNDARY OF SAID LOT 2; THENCE SOUTHERLY ALONG THE SAID LOT 2 TO THE POINT OF BEGINNING.

SURVEYOR:
PORTLAND GENERAL ELECTRIC CO.
121 SW SALMON ST. PORTLAND, OR 97204
CONTACT: JEFF DANIELSON 503.464.8149

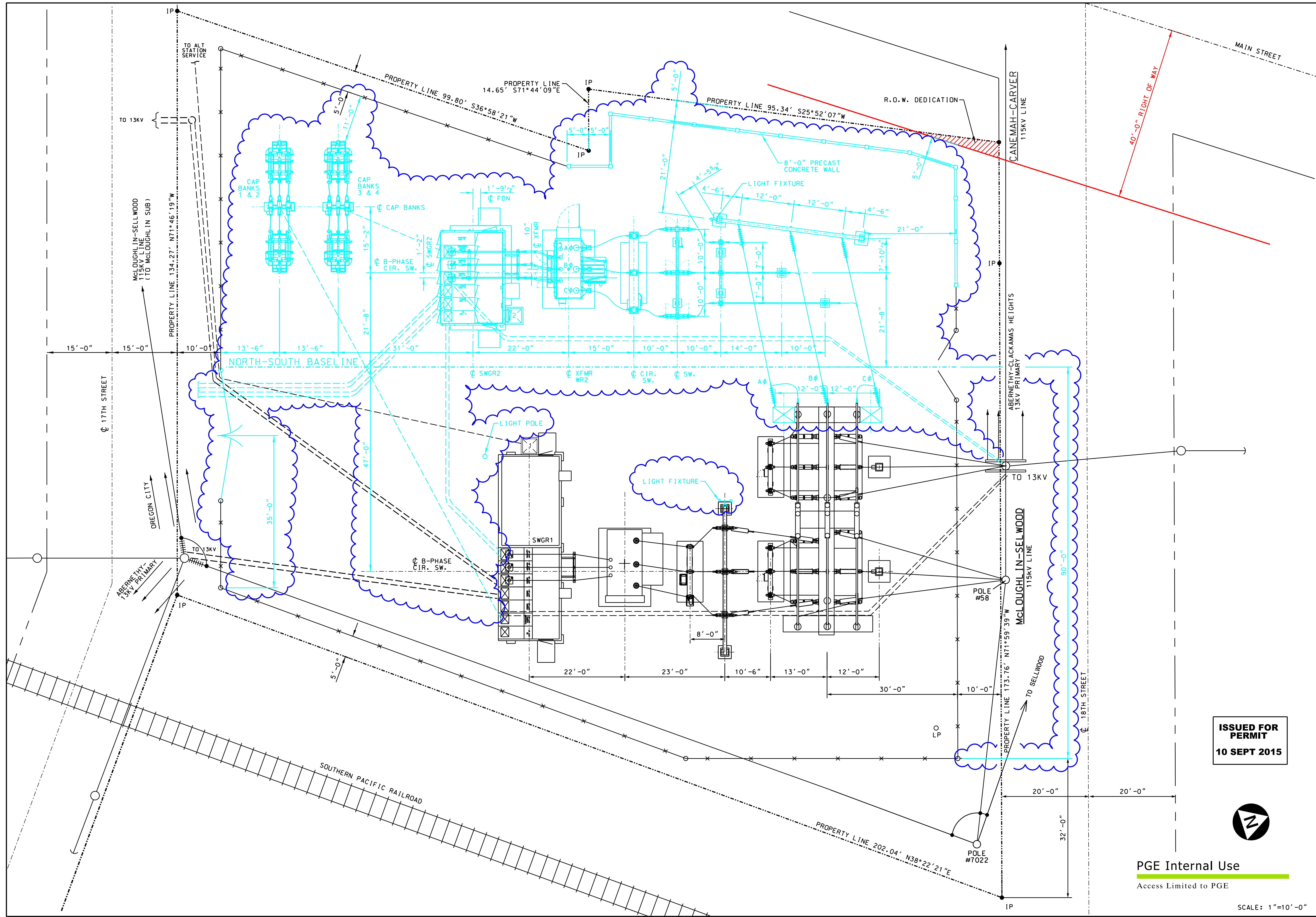
SITE AREAS

PROPERTY AREA=	0.65 ACRES
TOTAL FENCED AREA =	0.51 ACRES
DISTURBED AREA =	0.08 ACRES
IMPERVIOUS AREA=	0.02 ACRES

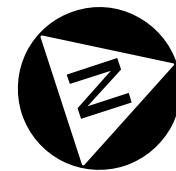
1. DIMENSION SHOWS CLOSEST POINT OF 25' STRUCTURE TO FENCE AND PROPERTY LINE

	EDGE OF PAD
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	GRADING SLOPE ARROW
	PROPERTY LINE
	NEW PRECAST CONCRETE WALL
	FENCE
	UNDERGROUND WATERLINE
	LARGE DECIDUOUS TREE
	DECIDUOUS TREE
	ARBORVITAE APPROX. 8' HEIGHT
	SHRUB APPROX. 6' HEIGHT
	NEW SHRUBS (SEE LANDSCAPING PLAN)
	CATCH BASIN
	CLEAN OUT
	STORM MANHOLE
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	EXISTING UTILITY POLE
	SIGN
	LIGHT POLE
	SEWER MANHOLE

SITE PLAN
SCALE: 1" = 20'-0"



ISSUED FOR
PERMIT
10 SEPT 2015



PGE Internal Use
Access Limited to PGE

SCALE: 1"=10'-0"

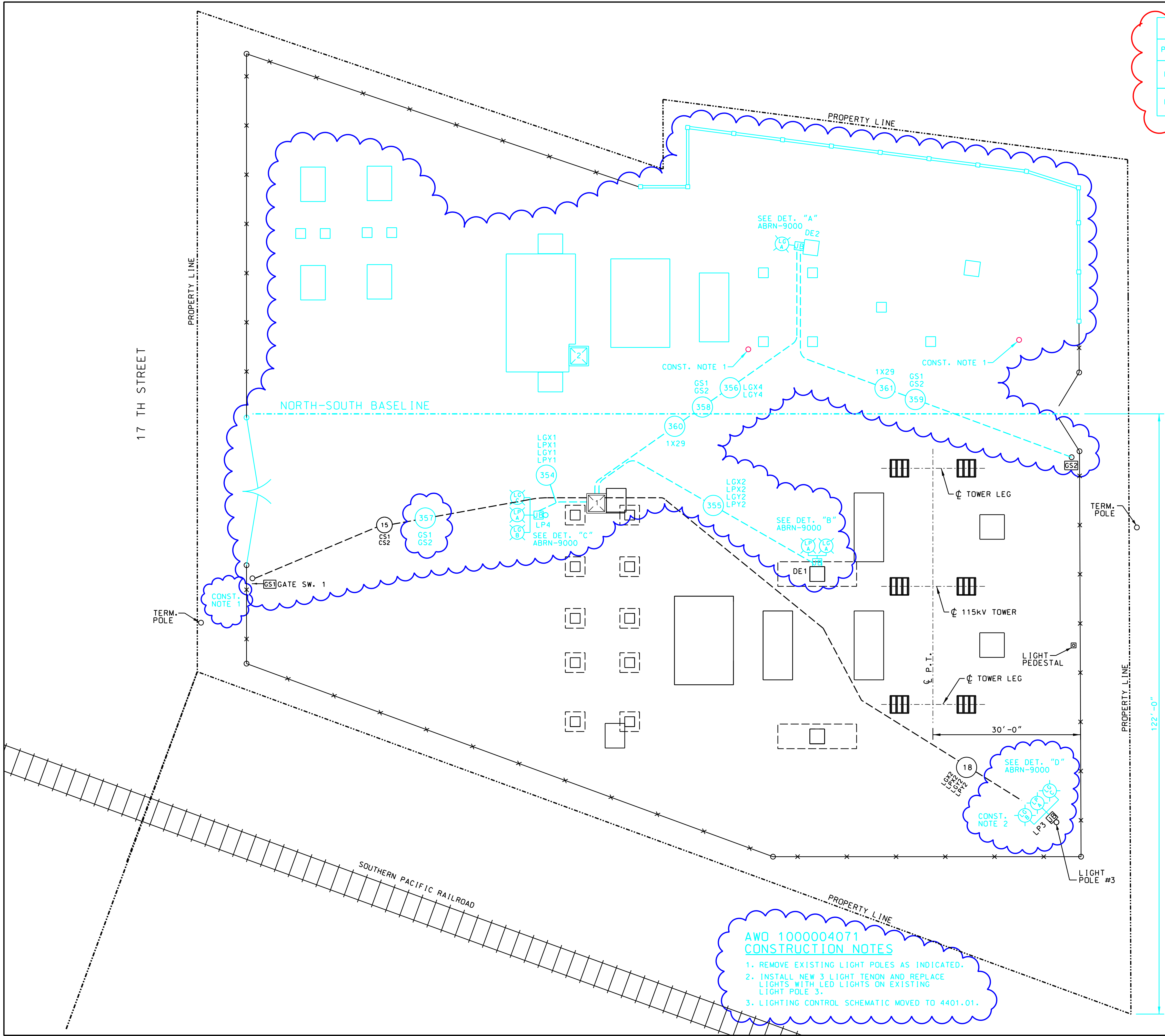
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JWR	04/01/58	0	ORIGINAL ISSUE:	JR	LIT
TME	07/01/10	7	SUPERCEDES CE-5436; ADDED SWITCHGEAR 3 CS'S & 6 SWITCHES. JOB 25598.	REJ	BOB
TME	10/29/10	8	REVISION PRIOR TO CONSTRUCTION JOB 25598.	REJ	BOB
PEI	/	9	ADDED CS W212, XFMR WR2, DS W211, SWGR 2 & CAP BANKS 1, 2, 3 & 4. AWC 100004071.	PEI	NJC

ABERNETHY SUBSTATION
GENERAL LAYOUT

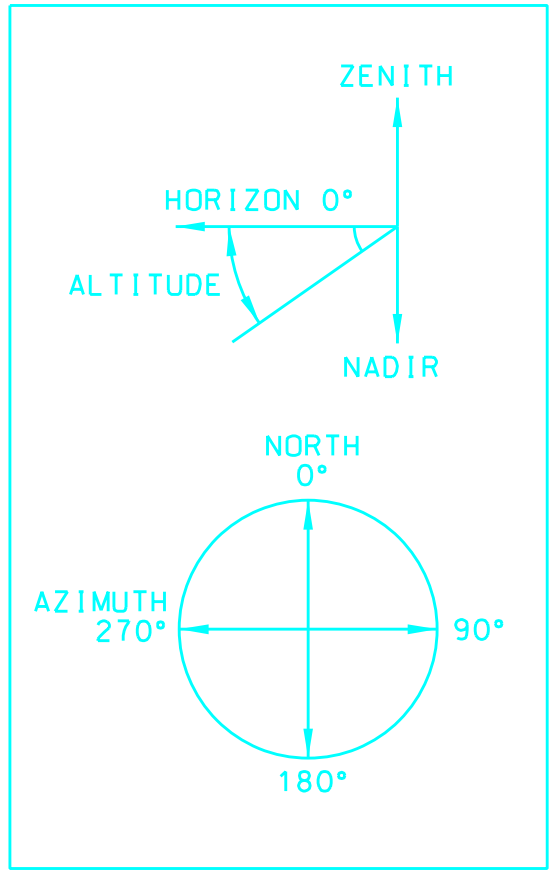
ABRN-1000
SHEET 1 OF 1
DISTR CODE AG

Portland
General
Electric

PGE



LIGHTING TABLE						
POLE	LIGHT	MODEL #	ALTITUDE	AZIMUTH	MOUNTING HEIGHT	CIRCUIT
LP1	A	AREA LIGHT GE EASB-DE4F- 5401-S-DKBZ	#° BELOW HORIZON	.	.	.
LP1	B	TASK LIGHT GE EFNA-OF4- 5401-S-DKBZ	#° BELOW HORIZON	.	.	.



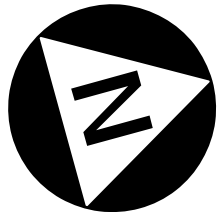
HOLD

ISSUED FOR PERMIT
10 SEPT 2015

LEGEND

- LIST OF MATERIAL ITEM
- CIRCLE GROUP NO.
- GATE SWITCH CONTROLLED LIGHT
- PHOTOCELL CONTROLLED LIGHT
- UNDERGROUND VAULT
- FENCE
- PRECAST CONCRETE WALL
- JUNCTION BOX
- GATE SWITCH - 3 WAY OR 4 WAY

AWO 1000004071
CONSTRUCTION NOTES
1. REMOVE EXISTING LIGHT POLES AS INDICATED.
2. INSTALL NEW 3 LIGHT TENON AND REPLACE LIGHTS WITH LED LIGHTS ON EXISTING LIGHT POLE 3.
3. LIGHTING CONTROL SCHEMATIC MOVED TO 4401.01.



PGE Internal Use
Access Limited to PGE

SCALE: 1"=10'-0"

AWO 1000004071
CONSTRUCTION NOTES

1. REMOVE EXISTING LIGHT POLES AS INDICATED.
2. INSTALL NEW 3 LIGHT TENON AND REPLACE LIGHTS WITH LED LIGHTS ON EXISTING LIGHT POLE 3.
3. LIGHTING CONTROL SCHEMATIC MOVED TO 4401.01.

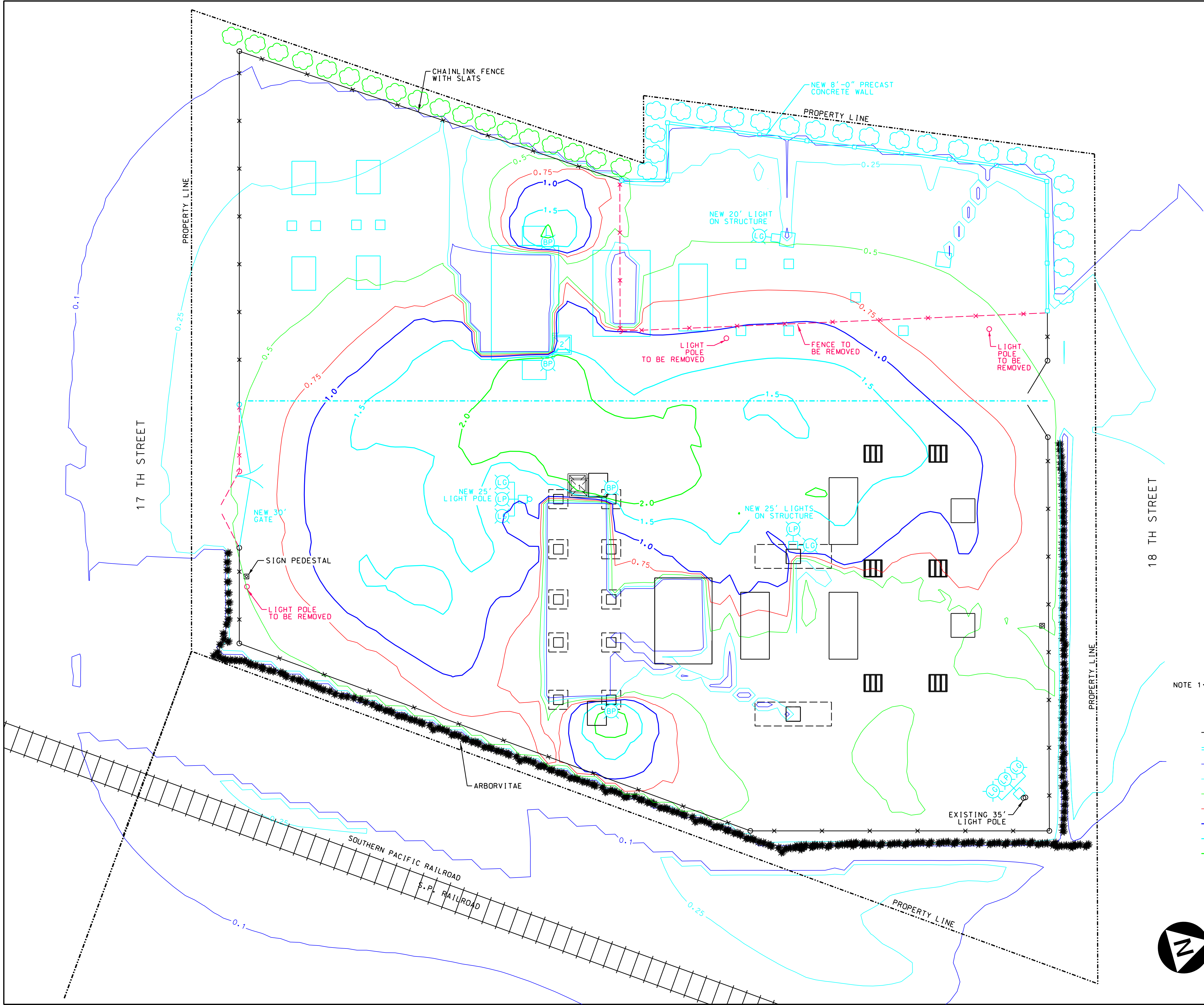
Portland General Electric
PGE

ABERNETHY SUBSTATION
LIGHTING PLAN *

ABRN-4400

1 OF 1
AG

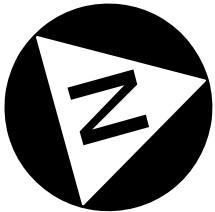
REV	DATE	DESCRIPTION	ENGR	CHK	APPD
0	05/05/58	ORIGINAL ISSUE:			
4	10/01/10	ADDED 3 LIGHT POLES, JOB 25598.	JWR	PAS	WEC
5	02/04/13	REVISED PER RECORD REVISION, JOB 25598.	TME	SAA	JPL
6	/ /	ADDED NEW LIGHT POLE AND NEW LIGHT FIXTURES FOR YARD EXPANSION. REMOVED (3) THREE LIGHT POLES, AWO 100004071.	RTG	JWZ	BOP
			PEI	NVD	PEI



NOTES

1. THE CONTOURS SHOWN ON THIS DRAWING ARE ILLUMINATION IN FOOTCANDLES (f'c) AT GROUND SURFACE FOR NIGHTTIME BACKGROUND LIGHTING. ONLY LIGHTS LP & BP ARE SWITCHED ON IN THIS MODEL.

- LEGEND**
- LG GATE SWITCH CONTROLLED LIGHT FLOOD LIGHT, LED, 148W, 120-277V MODEL# GE EFNA-OF4-5401-S-DKBZ
 - LP PHOTOCELL CONTROLLED LIGHT AREA LIGHT, LED, 171W, 120-277V MODEL# GE EASB-OE4F-5401-S-DKBZ
 - BP PHOTOCELL CONTROLLED LIGHT ENCLOSURE PORCH LIGHT, HPS, 175W
 - FENCE
 - PRECAST CONCRETE WALL
 - 0.1 f'c
 - 0.25 f'c
 - 0.5 f'c
 - 0.75 f'c
 - 1.0 f'c
 - 1.5 f'c
 - 2.0 f'c
 - ARBORVITAE
 - SHRUB APPROX. 6' HEIGHT
 - NEW SHRUBS (SEE LANDSCAPING PLAN)



PGE Internal Use
Access Limited to PGE

ISSUED FOR PERMIT
10 SEPT 2015

SCALE: 1"=10'-0"

REVISION DESCRIPTION			DATE			DRAWN			CHK			APPD		
REV	DATE	DESCRIPTION	REV	DATE	DESCRIPTION	PEI	NVD	AFL	PEI	NVD	AFL	PEI	NVD	AFL
0	09/10/15	ORIGINAL ISSUE: AWO 1000004071		/	/									
	/	/		/	/									
	/	/		/	/									
	/	/		/	/									
ABERNETHY SUBSTATION														
PERMIT														
LIGHTING PLAN														
BACKGROUND LIGHTING														
ABRN-0001			1 OF 1			PER			PER			PER		
0			0			0			0			0		

Appendix B Pre Application Conference

B-1 Pre App Notes from Planning

B-2 Pre App Notes from Engineering

B-3 Pre App Comments from Fire District #1

PRE-APPLICATION MEETING NOTES

Project Number: PA 15-04
Project Name: PGE Abernethy substation
Meeting Date: March 18, 2015

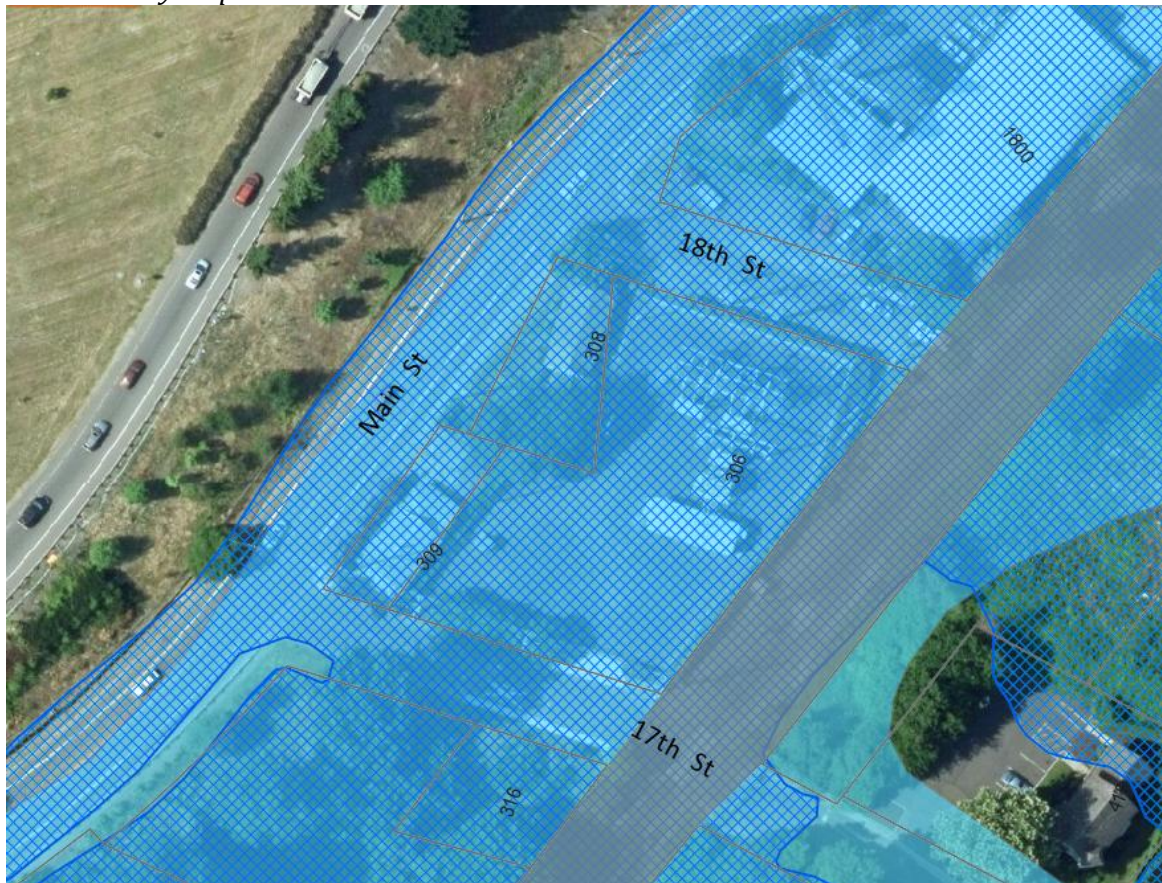
Proposed Project:

The applicant has proposed to expand the existing power substation with a transformer and feeder addition. The footprint will be expanded by 3000 square feet.

General Information:

- Location: 306 and 308 18th Street
- Zoning: MUD Mixed Use Downtown District
- Previous applications/approvals: HR 12-06 to demolish historic home
- Applicable Overlay Districts: NROD, floodplain
- Applications anticipated: Type III Conditional Use, Site Plan and Design Review, possible Variance

Flood Overlay map



Planning Comments:

- The base of these facilities shall not be located closer to the property line than a distance equal to the height of the structure.
- Chain link is not permitted in visible locations. A variance may be pursued – staff to follow up.
- Barbed wire must be approved by the City Manager; however, it is likely that the Planning Commission will want you to provide a more decorative fence and landscaping treatment along Main Street.
- Landscaping upgrades to the entire site will be required if the project cost exceeds \$75,000. The upgrades would be limited to 10% of the project cost.
- The expansion area must include 10% landscaping - *"Landscaping." Includes site improvements which include lawn, garden, groundcover, trees, plants and other natural and decorative features, including but not limited to, patios or plazas open to the public or open commonly to residents and street furniture and walkways which are contiguous and integrated with plant material landscaped areas.*
- Submit the arborist's report for the trees along with your land use application. If dying, diseased, or hazardous, the trees do not have to be mitigated.
- Balance cut and fill is required. An engineer's calculation of the material added to/removed from the floodplain must show no net fill. Flood level is 50.7 feet.

Required Application Materials:

- Land Use application with property owner's signature
- Pre-application notes
- Neighborhood meeting sign in sheet and notes
- Title Report or TRIO
- Narrative
- Site Plan and Elevation Drawings
- A written response demonstrating compliance with each criterion listed in Chapter 17.62.050, 17.56, 17.58 (staff to send template document)
- Responses to applicable goals and policies of Comprehensive Plan (staff to send template document)
- Two hard copies and one electronic copy of all application materials

Clackamas County Fire:

Your application was reviewed by Mike Boumann, Lieutenant Deputy Fire Marshal of Clackamas County Fire District #1. You may contact Mr. Boumann at (503)742-2660 or michaelbou@ccfd1.com.

Notes:

- A neighborhood meeting is required with the Two Rivers NA. Next meeting held 4th Wednesday of April. Contact information here - <http://www.oregoncity.org/community/two-rivers-neighborhood-association>
- The planning department provided notice of your proposed development to the State Historic Preservation Office (SHPO) and all affected tribes per OCMC chapter 17.62.040.H. This notice requirement applies to any project that involves ground disturbance involving movement of native soils.

Planning Review and Application Fees:

The 2015 Planning applications and fees include-

- Conditional Use: \$3,724
- Variance: \$2452
- Site Plan and Design Review

Project Cost	Fee
Less than \$500,000	\$2031 plus 0.7% project cost
\$500,000 to \$3,000,000	\$3384 plus 0.5% project cost
Over \$3,000,000	\$11,510 plus 0.3% project cost (Max \$53,989)

- Mailing Labels: \$15 – Optional

Pre-application conferences are required by Section 17.50.050 of the City Code, as follows:

A. Preapplication Conference. Prior to submitting an application for any form of permit, the applicant shall schedule and attend a preapplication conference with City staff to discuss the proposal. To schedule a preapplication conference, the applicant shall contact the Planning Division, submit the required materials, and pay the appropriate conference fee. At a minimum, an applicant should submit a short narrative describing the proposal and a proposed site plan, drawn to a scale acceptable to the City, which identifies the proposed land uses, traffic circulation, and public rights-of-way and all other required plans. The purpose of the preapplication conference is to provide an opportunity for staff to provide the applicant with information on the likely impacts, limitations, requirements, approval standards, fees and other information that may affect the proposal. The Planning Division shall provide the applicant(s) with the identity and contact persons for all affected neighborhood associations as well as a written summary of the preapplication conference. Notwithstanding any representations by City staff at a preapplication conference, staff is not authorized to waive any requirements of this code, and any omission or failure by staff to recite to an applicant all relevant applicable land use requirements shall not constitute a waiver by the City of any standard or requirement.

B. A preapplication conference shall be valid for a period of six months from the date it is held. If no application is filed within six months of the conference or meeting, the applicant must schedule and attend another conference before the City will accept a permit application. The community development director may waive the preapplication requirement if, in the Director's opinion, the development does not warrant this step. In no case shall a preapplication conference be valid for more than one year.

NOTICE TO APPLICANT: A property owner may apply for any permit they wish for their property. **HOWEVER, THERE ARE NO GUARANTEES THAT ANY APPLICATION WILL BE APPROVED.** No decisions are made until all reports and testimony have been submitted. This form will be kept by the Community Development Department. A copy will be given to the applicant. **IF the applicant does not submit an application within six (6) months from the Pre-application Conference meeting date, a NEW Pre-Application Conference will be required.**

PRE-APPLICATION MEETING NOTES**Date:** 3-11-15

Planning Project Number: PA 15-04
Address: 308 18th Street
Map Number: 2 2 E 29CB
Tax Lot: 01500 & 2000
Project Name: Substation Expansion
Meeting Date: 3-18-15
Reviewer: Gordon Munro

GENERAL COMMENTS

1. The Applicant is responsible for this project's compliance with Engineering Policy 00-01. The policy pertains to any land use decision requiring the Applicant to provide any public improvements.
2. The Applicant shall sign a Non-Remonstrance Agreement for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the Property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement.
3. The Applicant shall provide an Erosion Prevention and Sedimentation Control Plan to the City for approval.
4. All applicable System Development Charges (SDC) shall be due and payable upon building permit issuance.
5. A grading permit shall be obtained from Development Services for the on-site work.

ENGINEERING - UTILITIES**Streets**

1. The proposed development includes frontage on Main Street, which is classified as a collector street (mixed-use). The standards for a collector street are: 86' ROW, 64' pavement, (3) 12' travel lanes, 6' bike lane, 8' street parking, curb and gutter, and 10.5' sidewalk including 5' x 5' tree wells. The minimum distance between driveways is 100'.
2. The existing right-of-way (ROW) on the portion of Main Street fronting the proposed development is 60' and the pavement is approximately 34' wide with two travel lanes and two bike lane. The street has curb and gutter and 5' sidewalk curb tight sidewalk.

3. The street is fully developed in this fashion for some distance. It appears that the applicant could make the case that no improvements are needed in order to match the existing development.
4. The proposed development includes frontage on 17th and 18th Street, which are classified as a local street (mixed-use). The standards for a collector street are: 62' ROW, 40' pavement, (2) 12' travel lanes, 8' street parking, curb and gutter, and 10.5' sidewalk including 5' x 5' tree wells.
5. The existing right-of-way (ROW) on the portion of 17th Street fronting the proposed development is 40' and the pavement is approximately 25' wide with two travel lanes. The street has curb and gutter and 5' sidewalk curb tight sidewalk. There is an uncontrolled railroad crossing.
6. The existing right-of-way (ROW) on the portion of 18th Street fronting the proposed development is appears to be 40' and the pavement is approximately 18' wide with two travel lanes. The street has curb and gutter, 4' planter strip and 4' sidewalk. The street is only one block long and dead ends at the railroad tracks.
7. Both streets are fully developed in this fashion, and 18th Street dead ends at the railroad tracks. It appears that the applicant could make the case that no improvements are needed in order to match the existing development.

Stormwater

8. If the proposed development creates more than 2,000 sf of new impervious area, or redevelops 5,000 sf impervious area it will be subject to stormwater quantity control requirements. It appears that quantity control will not be required.
9. The proposed development creates less than 8,000 sf of new impervious area, therefore it will not be subject to stormwater quantity control requirements. It appears that quality control will not be required.
10. If the application confirms that the quantity and quality control are not required, then a preliminary storm report is not required for the land use application. When responding to code section 13.12.050, the applicant should provide the actual new impervious area and/or redeveloped area. Gmunro2014

Water

11. There is an 8" water line installed in Main Street, and a 6" water line on 17th Street.
12. It is assumed that the only water service that may be required would be for irrigation. Appropriate backflow devices would be needed.
13. No public water improvements are anticipated.

Sanitary Sewer

- 14. There is an 8" PVC sanitary sewer pipe installed in Main Street, and on 18th Street.
- 15. No public sanitary sewer improvements are anticipated.

Other

- 16. The proposed development is located within the floodplain, so code section 17.42 will need to be addressed. No net cut/fill is allowed.
- 17. The proposed development is located within the natural resource overlay district (NROD), so code section 17.49 will need to be addressed.
- 18. The proposed development is just outside of the geologic hazard overlay.

Clackamas County Fire District #1

Fire Prevention Office



To: Kelly Moosebrugger, Oregon City Planning

From: Mike Boumann, Deputy Fire Marshal, Clackamas County Fire District #1

Date: 3/18/2015

Re: PGE Substation Expansion, 306 18th Street, Oregon City

This review is based upon the current version of the Oregon Fire Code (OFC), as adopted by the Oregon State Fire Marshal's Office. The scope of review is typically limited to fire apparatus access and water supply, although the applicant must comply with all applicable OFC requirements.

- 1) The Fire District has no comments for this proposal.

Appendix C Neighborhood Meeting

C-1 Meeting Notes & Sign-in Sheet



TWO RIVERS NEIGHBORHOOD ASSOCIATION

***13285 S. Clackamas River Drive
Oregon City, OR 97045***

MINUTES OF April 22, 2015

**Rivershore Bar & Grill
1900 Clackamette Drive
Oregon City, OR 97045**

The meeting was Call to Order by Chairman, Bryan Boyce at 7:01pm.
Guests and members where asked to introduce themselves.

A presentation by Gregg Ramirez, Emergency Manager, Clackamas Fire District # 1. Emergency preparedness and CERT programs. For Businesses. Mr. Ramirez showed a video on the Fire District' s 2015 Bond Measurer. Attachment on 3-466.

Chris Wadsworth of the Oregon City Police Department, discussed the New Police Station to be built on the McLoughlin School Property on Linn Avenue. The City has purchased the property from the Oregon City School District and there are plans to eventually move the City Hall also to this site.

Chris also gave the Police report for Andy Kiesel, Detective, Oregon City Police Department. Report attached.

Jim Vondenkamp, Project Manager, Portland General Electric, presented the propose expansion of the Substation at 18th & Main Streets. Design is attached.

Bob La Salle, Chairman of the Oregon City Traffic Advisory Committee discussed the traffic problems in Two Rivers NA and Oregon City. Map attached.

Peter Walters, Oregon City Planning Department presented information on various topics including the Friends of Willamette Falls Joint with Willamette Falls Legacy Project to pay for Temporary Signs on the River Walk out to the Falls.

Discussion followed with Questions and Answers.

A motion was made by Jerry Herrmann that Two Rivers NA give full support the PGE project for the expansion of the Substation at 18th & Main streets. Second and the motion passed.

Chair Boyce thanked the Guests for attending.

Chair Boyce adjourned the meeting at 8:45pm.

Respectfully Submitted

Margie Hughes
Secretary
Two Rivers NA

Sign-in sheet attached

TWO RIVERS NA

MEETING

SIGN-IN

A	B	C	D	E	F
1	NAME	ADDRESS	ZIP	TELEPHONE	EMAIL ADDRESS
2	1 Bryan Bone				bryan@bcalink.net
3	2 JIM VANDENKAMP	PEE			j.vandenkamp@pgn.com
4	3 MARK LINDLEY	PEE			MARK.LINDLEY@PGN.COM
5	4 Margaret Apple			503-712-1114	
6	5 Mimi Cogswell	309 17th St (2)		503 740 5742	mimi.cogswell@gmail.com
7	6 PETER WALTER	O.C. Planning		503-496-1568	pwalter@orcity.org
8	7 Chris Woodsworth	OCPD		503-496-1681	CWADSWORTH@orcity.org
9	8 WILLIAM GIFFORD	HNA			William@smAulFlags.com
10	9 Jerry Herrmann	PO Box 124			WEST Linn, OR 97068
11	10				
12	11				

Appendix D Cut & Fill

D-1 Preliminary Cut & Fill Calculations

9/1/2015

ABERNETHY SUB

P. SCHEDLER

CUT / FILL PRELIMINARY CALCULATION

- 1996 FLOOD ELEVATION = 50.7 ft

PROPOSED NEW FOUNDATIONS	AREA	PROJECTION IN FLOOD PLAIN	VOLUME
①	$(4)(5\text{ ft})(7\text{ ft}) = 140\text{ ft}^2$	0.7 ft	98.0 ft^3
②	$(4)(2\text{ ft})(2\text{ ft}) = 16\text{ ft}^2$	0.7 ft	11.2 ft^3
③	$(25\text{ ft})(14.5\text{ ft}) = 362.5\text{ ft}^2$	0.7 ft	253.75 ft^3
④	$(12\text{ ft})(18\text{ ft}) = 216\text{ ft}^2$	0.7 ft	151.2 ft^3
⑤	$(14\text{ ft})(6\text{ ft}) = 84\text{ ft}^2$	0.7 ft	58.8 ft^3
⑥	$(2)(2\text{ ft})(2\text{ ft}) = 8\text{ ft}^2$	1.2 ft	33.6 ft^3
⑦	$(2)(3\text{ ft})(3\text{ ft}) = 18\text{ ft}^2$	1.2 ft	21.6 ft^3
⑧	$(2)(2\text{ ft})(2\text{ ft}) = 8\text{ ft}^2$	1.2 ft	33.6 ft^3
⑨	$(2)(2\text{ ft})(2\text{ ft}) = 8\text{ ft}^2$	1.2 ft	33.6 ft^3
⑩	$(1\text{ ft})(118\text{ ft}) = 118\text{ ft}^2$	1.2 ft	141.6 ft^3
TOTAL			$= 836.95\text{ ft}^3$ (FILL)

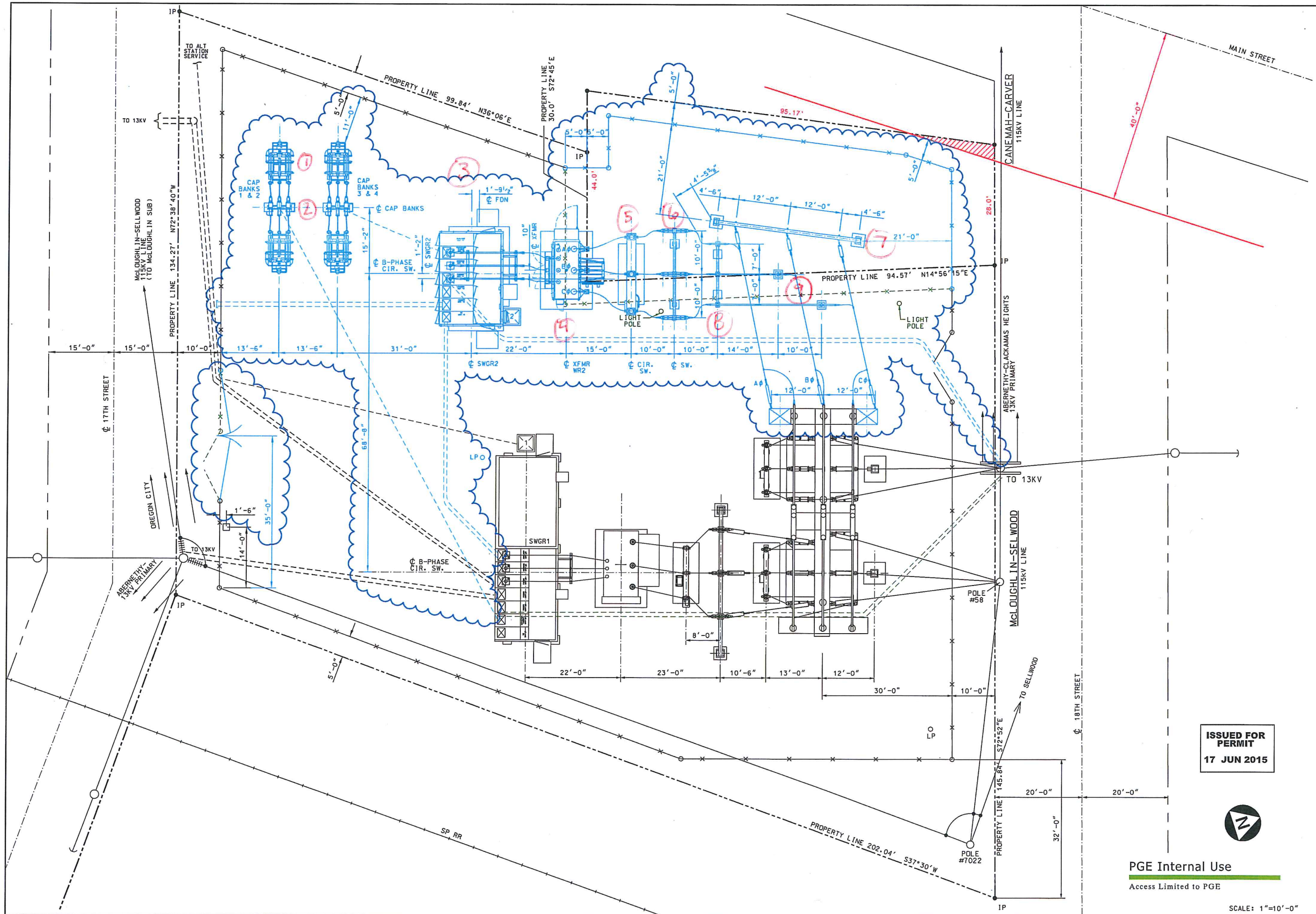
- EXISTING HOUSE DEMOLITION

$$\text{FLOOR AREA OF HOUSE} = 780\text{ ft}^2$$

$$\text{ELEVATION IN FLOOD PLAIN} = 1.2\text{ ft}$$

$$\begin{aligned}\text{VOLUME} &= (780\text{ ft})(1.2\text{ ft}) \\ &= 936\text{ ft}^3 \text{ (CUT)}\end{aligned}$$

∴ PROPOSED SUBSTATION EXPANSION WILL NOT RESULT IN NET FILL WITHIN THE 1996 FLOOD PLAIN.



ISSUED FOR
PERMIT
17 JUN 2015

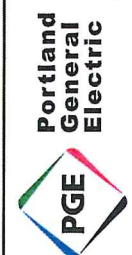


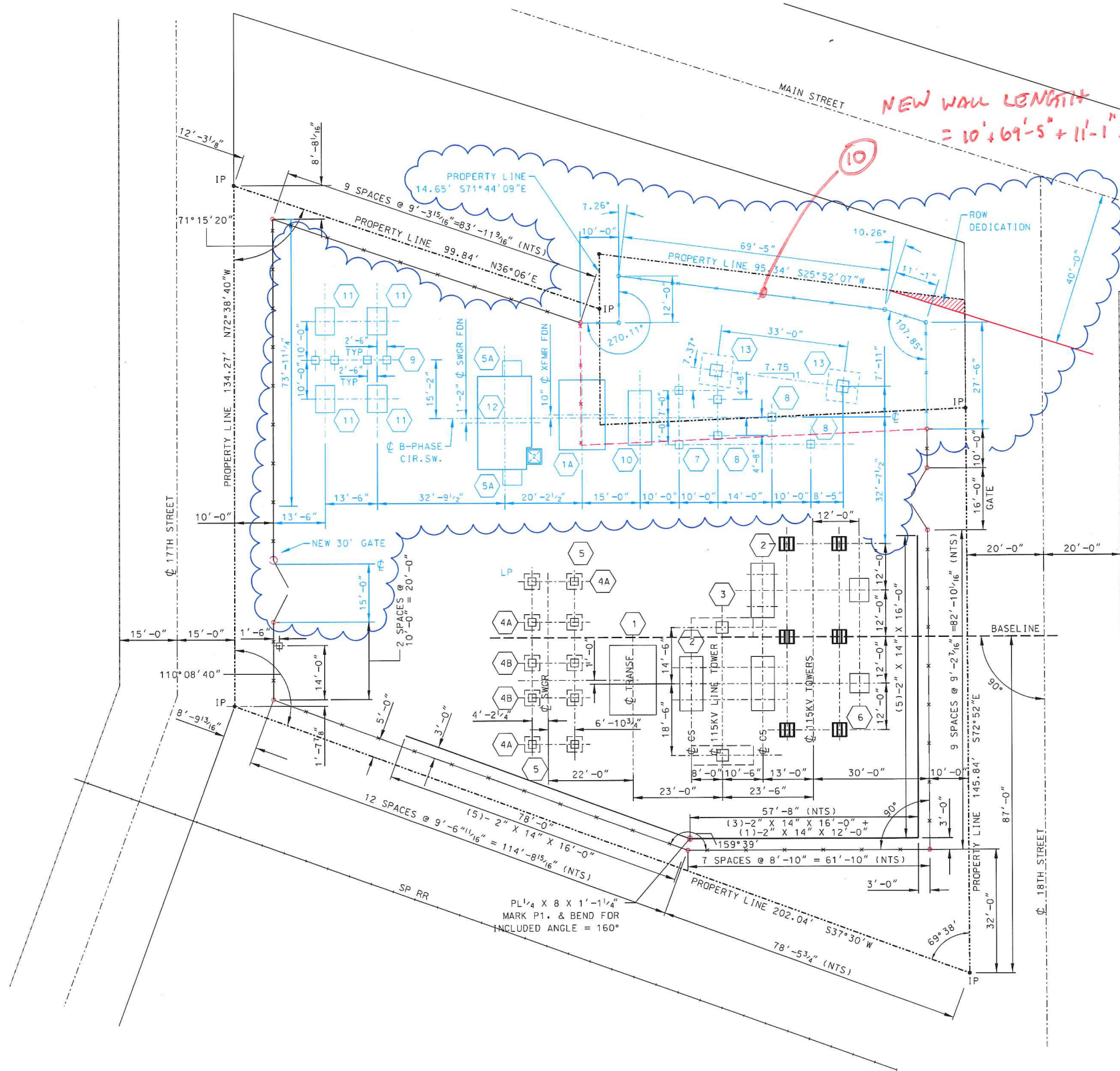
PGE Internal Use
Access Limited to PGE

SCALE: 1"=10'-0"

REVISION		DATE	DESCRIPTION	CHK	APPD.
0	04/01/08	ORIGINAL ISSUE		JR	LJT
7	07/01/10	SUPERCEDES CE-5438, ADDED SWITCHGEAR 3 CS'S & 5 SWITCHES, JOB 25598.		REJ	REJ
8	10/29/10	REVISION PRIOR TO CONSTRUCTION JOB 25598.		REJ	REJ
9	/ /	ADDED CS W212, XFMR WR2, DS W211, SWGR2 & CAP BANKS 1, 2, 3 & 4.		PEI	NVD
AWO 1000004071				AFL	NJC

ABERNETHY SUBSTATION GENERAL LAYOUT	
ABRN-1000	SHEET 1 OF 1
9	AG





NOTE:

FENCE TO BE STANDARD HEAVY CONSTRUCTION WITH 3 STRANDS OF BARBED WIRE ON 45° EXTENSIONS FACING OUTWARD AS PER PGE CO. SPEC. #100.

NEW WALL LENGTH
= 10' + 69'-5" + 11'-1" + 27'-6" = 118'-0"

AWD 1000004071
CONSTRUCTION NOTES

1. NEW FENCE SHALL HAVE TOTAL INSTALLED HEIGHT OF EIGHT (8) FEET WITH THE BOTTOM SEVEN (7) FEET BEING BLACK CHAINLINK FABRIC AND THE TOP ONE (1) FOOT CONSISTING OF 3 STRANDS OF SECURITY WIRE INSTALLED ON BRACKETS SLANTING OUTWARD AT 45°. LINE POST SPACING 10'-0" MAX.

FOUNDATION SCHEDULE

FDN NO.	DESCRIPTION	QTY.	TOP OF CONCRETE ELEVATION	DRAWING NO.
1A	TRANSFORMER	1	-	0300.01
5A	STOOP	2	VARIES	0300.03
7	115KV V-SWITCH STAND	2	-	0301.01
8	1 & 3 PHASE BUS SUPPORTS	4	-	0301.01
9	CAP BANK TERMINATION STRUCTURE	4	-	0301.01
10	CIRCUIT SWITCHER	1	-	0310.01
11	CAPACITOR BANK	4	-	0310.01
12	SWITCHGEAR	1	-	0311.01
13	115KV LINE TOWER	2	-	0320.01

GENERAL NOTES

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AFTER 28 DAYS.
2. ALL CONCRETE REINFORCEMENT SHALL COMPLY WITH CURRENT ASTM SPECIFICATION A-615, GRADE 60.
3. ALL EXCAVATIONS OCCURRING UNDER CONCRETE SLABS SHALL BE BACK FILLED WITH INCOMPRESSIBLE MATERIAL CONSISTING OF PROPERLY COMPACTED RIVER RUN (NATURAL) MIXTURE OF SAND AND GRAVEL.
4. ALL GROUND GRID AND CONDUITS TO BE IN PLACE BEFORE CONCRETE IS PLACED.
5. SET ANCHOR BOLTS TO TEMPLATE. CHECK LOCATIONS AND ELEVATIONS WITH INSTRUMENTS BEFORE CONCRETE IS POURED.
6. SLABS TO BE BROOM FINISHED AND SLOPED FOR SUFFICIENT DRAINAGE (NO PONDING). CHAMFER ALL EXPOSED EDGES.

PGE Internal Use

Access Limited to PGE

SCALE: 1/16"=1'-0"

AWD 1000004071
CONSTRUCTION NOTES

1. NEW FENCE SHALL HAVE TOTAL INSTALLED HEIGHT OF EIGHT (8) FEET WITH THE BOTTOM SEVEN (7) FEET BEING BLACK CHAINLINK FABRIC AND THE TOP ONE (1) FOOT CONSISTING OF 3 STRANDS OF SECURITY WIRE INSTALLED ON BRACKETS SLANTING OUTWARD AT 45°. LINE POST SPACING 10'-0" MAX.

FOUNDATION SCHEDULE

FDN NO.	DESCRIPTION	QTY.	TOP OF CONCRETE ELEVATION	DRAWING NO.
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5A	STOOP	2	VARIES	0300.03
7	115KV V-SWITCH STAND	2	-	0301.01
8	1 & 3 PHASE BUS SUPPORTS	4	-	0301.01
9	CAP BANK TERMINATION STRUCTURE	4	-	0301.01
10	CIRCUIT SWITCHER	1	-	0310.01
11	CAPACITOR BANK	4	-	0310.01
12	SWITCHGEAR	1	-	0311.01
13	115KV LINE TOWER	2	-	0320.01

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5. SET ANCHOR BOLTS TO TEMPLATE. CHECK LOCATIONS AND ELEVATIONS WITH INSTRUMENTS BEFORE CONCRETE IS POURED.
6. SLABS TO BE BROOM FINISHED AND SLOPED FOR SUFFICIENT DRAINAGE (NO PONDING). CHAMFER ALL EXPOSED EDGES.

ABRN-0200

SHEET 1 OF 1

7

FF

ABERNETHY SUBSTATION

FENCE AND LOCATION PLAN

Portland General Electric

PGE

REV.	DATE	DESCRIPTION	CHK.	APP.
0	05/02/58	ORIGINAL ISSUE:	WEJ	DEC
5	06/15/88	ADDED 115KV CIRCUIT SWITCHER FOUNDATIONS	RVB	
6	06/07/10	SUPERSEDES CE-6376, ADDED BORDER, INDEXED DWG., REMOVED ALL FDS, EXCEPT TOWER, ADDED FDS 1, 5, JOB 25598.	MN	PDS
7	/ /	ADDED FOUNDATIONS 1A, 5A, 7, 8, 9, 10, 11, 12 & 13, AWO 1000004071.	PEI	NVD

Appendix E Arborist Report

E-1 Report for Removal of Two Trees



ISA Certified Arborists on Staff

2074 NW Alclek #403
Hillsboro OR 97124
503-645-2242 Office
503-645-9399 Fax
Oregon CCB#164737 WA License#NORTHTS958LT
www.nwtreespecialists.com



Arborist Report

Larry McDowell / PGE

306 18th St

Oregon City, Oregon 97045

Objective

Provide an overview of health and structure regarding the large 42" dbh Cherry tree (*Prunus emarginata*) and 18" dbh Hawthorn (*Crataegus monogyna*) in regards to possible removal for construction purposes to expand power substation.

General site conditions:

The trees in question are located along the west property line of the above address. The surrounding area consists of turf grass, parking lot to the south, and sidewalk to the west.

Observations:

The Hawthorn tree was a multiple stem tree with two of the three stems being removed (attachment one) prior to my site visit on Monday, February 16th. The remaining stem is growing to the west and has a heavy lean toward the sidewalk with no counterbalance due to the prior cutting of two stems (attachment 2). The previously cut stumps are showing signs of decay, possibly causing remaining trees' stump to be suspect of rot.

The Cherry tree is very large and mature. The tree looks to be in fair health overall for its size, but with strong evidence of heartwood decay (attachments 3 and 4). A Cherry tree of this maturity can be highly prone to large limb or trunk failure due the amount of trunk decay.

Findings & Recommendations:

The trees in question should be classed as very mature representatives for their species. Existing as open grown trees, natural competition from other trees is non-existent and natural thinning and self-pruning has occurred.

Considering that the overall health of the trees are fair, with respect to live crown ratio and foliage size, hazard rating of the trees does not require removal as use under the tree is low.

Several steps should be taken to increase longevity of the Cherry tree in question if the tree is to be retained. To lessen the chance of future failure, weight reduction and selective thinning will need to be done throughout the canopy of the Chery tree. A thorough prune should not be considered a permanent fix as continual monitoring will be required and subsequent pruning will be necessary in the future to continually reduce weight of large lateral branches. Even through constant monitoring and mitigation, breaks and tear outs can still be expected on the Cherry tree, especially in extreme conditions: snow, ice and wind.

Removal of the trees may be a viable option and offers the only solution to removing all hazard and risk associated with the trees due the maturity of the Cherry tree and the Hawthorn's heavy lean and root system decay.

Report provided by:

Trevor March
Certified Arborist PN 5740 AM
Cell 503.3806688
Office 503.645.2242
Northwest Tree Specialists
2074 NW Aloclek #403
Hillsboro Or 97124



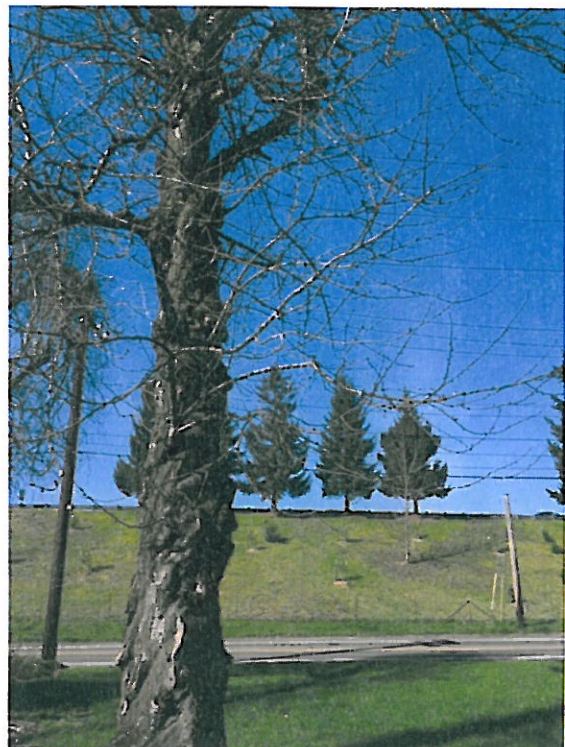
Attachment 1



Attachment 2



Attachment 3



Attachment 4