# TUALATIN ARCHITECTURAL REVIEW BOARD MEETING 

WEDNESDAY, JULY 24, 2019
6:30 PM
POLICE TRAINING ROOM 8650 SW TUALATIN RD TUALATIN, OR 97062

## CALL TO ORDER \& ROLL CALL

Staff: Steve Koper, Planning Manager; Tabitha Boschetti, Assistant Planner
Members: Nancy Grimes, Skip Stanaway, Nichole George, Patrick Gaynor, Chris Goodell, Carol Bellows, Lisa Quichocho.

## APPROVAL OF MINUTES

1. Consideration of approval of Architectural Review Board Meeting Minutes, dated September 20, 2017.

## ANNOUNCEMENTS \& COMMUNICATION

COMMUNICATION FROM THE PUBLIC (NOT ON THE AGENDA)

## ACTION ITEMS

1. Consideration of an Architectural Review application (AR 19-0005) for the PGE Integrated Operations Center development at 12150 SW Tualatin-Sherwood Road (2S127C Tax Lots: 500 and 701).

COMMUNICATION FROM CITY STAFF
FUTURE ACTION ITEMS

## ADJOURNMENT

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UNOFFICIAL

## ARCHITECTURAL REVIEW BOARD MEETING <br> MINUTES OF SEPTEMBER 20, 2017

ARB MEMBERS PRESENT:
STAFF PRESENT

## Jeff DeHaan

Skip Stanaway
Patrick Gaynor
Aquilla Hurd-Ravich

Chris Goodell
Angela Niggli
ARB MEMBERS ABSENT: Carol Bellows
GUESTS: Jennifer Kimura, Bill Lambert, Jason Sahlin, Kim Schoenfelder, Erin Holsonback

1. CALL TO ORDER AND ROLL CALL:

Jeff DeHaan, Chair, called the meeting to order at 6:31 pm and reviewed the agenda.
Roll call was taken.
2. APPROVAL OF MINUTES:
A. Approval of ARB Minutes from February 6, 2017.

Mr. DeHaan asked for review and approval of the February 6, 2017 ARB minutes. MOTION by Goodell, SECONDED by Niggli to approve the minutes as written. MOTION PASSED 5-0.
B. Approval of ARB Minutes from June 28, 2017.

Mr. DeHaan asked for review and approval of the June 28, 2017 ARB minutes. MOTION by Goodell, SECONDED by Stanaway to approve the minutes as written. MOTION PASSED 5-0.
3. COMMUNICATIONS FROM THE PUBLIC (NOT ON THE AGENDA):

None

## 4. PUBLIC HEARINGS:

## A. IPT Tualatin Recommendation and Staff Report for AR17-0006

These minutes are not verbatim. The meeting was recorded, and copies of the recording are retained for a period of one year from the date of the meeting and are available upon request.

Mr. DeHaan read the script for Quasi-Judicial Hearings. Mr. DeHaan asked the board members if they had a conflict of interest, bias, or ex-parte contact with the applicant. Hearing none, the staff report was presented.

Charles H. Benson III, Associate Planner, presented the staff report for IPT Tualatin which included a PowerPoint presentation. Mr. Benson stated that this project is for a new one-story approximately 157,230-square-foot industrial building "shell" in the General Manufacturing (MG) planning district. The building design is cohesive and consists of 42-foot-tall tilt-up concrete panels anchored with prominent corner elements, with industrial-style canopies and clear aluminum storefront windows.

Mr. Benson stated that this proposal requires Architectural Review Board (ARB) review and decision as the proposed industrial building would be greater than 150,000 square feet in size, pursuant to TDC Section 73.030(2).

Mr. Benson conveyed that the application was submitted on July 19, 2017, deemed complete on August 14, 2017, and the 120-day period ends on December 12, 2017. Mr. Benson added that staff finds that the proposed development generally reflects TDC Standards for architectural features and staff recommends conditions of approval where the proposed development does not meet TDC standards.

Mr. Benson went through the slides that detailed the vicinity map, existing site plan, proposed site plan, proposed elevations, and adjacent development. Mr. Benson stated that staff recommends that the ARB approve AR17-0006 with the following conditions:

- Evidence that pedestrian and bicycle accessways meet minimum TDC and ADA standards;
- Modification to mixed solid waste and recyclables storages areas;
- Modifications to bicycle parking;
- Modifications to vanpool/carpool parking
- Modifications to parking stalls
- Modifications to lighting in the eastern portion of the project site to reduce amount of light shining onto the property to the east

Mr. Benson stated that the ARB members can approve with staff recommended findings and conditions of approval, approve with amended findings and conditions of approval, continue the Hearing, or deny the application.

Jason Sahlin, VLMK Engineers, 3933 SW Kelly Ave, Portland OR
Mr. Sahlin stated that Industrial Property Trust is a subsidiary of the Black Creek Group. They currently have 42 million square feet of space across the country and 2 million locally. Mr. DeHaan asked if they currently have property in Tualatin. Mr. Sahlin said they do not but are looking for additional space locally.

Mr. Sahlin stated that Industrial Property Trust is a Class A industrial office developer. Mr. Sahlin noted that there is a lot of flexibility regarding amenities on the property. This current development will have 4 pods, 1-4 tenants, and is sub-dividable. Mr. Sahlin referred to the site renderings to explain the features, accents, and landscaping.

Kim Schoenfelder, KG Investment Properties, 1920 NW Amberglen Parkway, \#100, Portland, OR

Ms. Schoenfelder stated that it is important that they invest a lot into this development and it will be a higher standard than most industrial developments. Ms. Schoenfelder added that they have met with the land owner to the north, have a great relationship with him, and he is in favor of the project. Ms. Schoenfelder noted that they have no objections to the conditions of the staff report.

Mr. DeHaan inquired about the possibility of disturbing the wetlands to the north. Mr. Sahlin replied that they will not be disturbed since they are further north. Mr. Stanaway asked about the lighting plan. Mr. Sahlin stated that the light levels will have shields so the light will shine down and not out.

Mr. Stanaway asked about the proportions and recommended breaking down the scale with the continuation of the horizontal line. He added it will soften the look of the wall.

Mr. Gaynor inquired about the landscape plan. After reviewing the plan, he noticed the street trees are not on the approved street tree list and may require revision. Mr. Gaynor provided some suitable alternatives which included replacing the proposed Yellowwood trees with trees of the Zelkova serrata species. Mr. Gaynor also requested replacing some of the flowering cherry trees with flowering dogwoods.

Mr. DeHaan inquired about possible tenants in the building. Ms. Schoenfelder answered that this is designed mainly for manufacturing and warehouse use. Mr. DeHaan mentioned that some industrial buildings in Tualatin are used for a brewery or restaurant and he didn't feel that this space is suitable for sitting outdoors. Mr. Sahlin responded that this development is intended for larger industrial space. Ms. HurdRavich added that parking will need to be increased if a change of use was to occur.

Ms. Niggli inquired about the height of the Itel building. Ms. Schoenfelder answered that this building is 30 feet and the proposed IPT building will be 38 feet.

Mr. DeHaan suggested a motion to add Mr. Gaynor's landscaping condition - replacing the proposed Yellowwood tress with trees of the Zelkova serrata species. MOTION by Patrick, SECONDED by Goodell. MOTION PASSED 5-0.

Mr. Stanaway brought up the recommendation to scale down the building with an extension of the horizontal band to scale down the panels. Mr. Gaynor stated that there are four rows of trees, which will fill in the gaps well, and the trees will grow to the height of the building. The consensus was to make this request a recommendation and not a
condition of approval.
The ARB members motioned to approve the application with amending findings and an additional condition of approval of replacing the proposed Yellowwood trees with trees of the Zelkova serrata species. MOTION by Goodell, SECONDED by Patrick. MOTION PASSED 5-0.

## 5. COMMUNICATION FROM BOARD MEMBERS

None.

## 6. ADJOURNMENT

MOTION by Patrick, SECONDED Stanaway to adjourn the meeting at 7:37 pm. MOTION PASSED 5-0.

## CITY OF TUALATIN Staff Report

TO:

## THROUGH:

FROM:
DATE:

Architectural Review Board
Steve Koper, AICP Planning Manager
Tabitha Boschetti, Assistant Planner
July 24, 2019

## SUBJECT:

Consideration of an Architectural Review application (AR 19-0005) for the PGE Integrated Operations Center development at 12150 SW Tualatin-Sherwood Road (2S127C Tax Lots: 500 and 701).

## RECOMMENDATION:

Based on the application materials and findings demonstrating compliance with the applicable criteria, staff respectfully recommends approval of the subject Architectural Review application (AR 19-0005), subject to the recommended conditions of approval in the Analysis and Findings.

## EXECUTIVE SUMMARY:

- The subject proposal is an Architectural Review application (AR 19-0005), a Type III land use case subject to a quasi-judicial hearing before the Architectural Review Board.
- The subject site comprises 43 acres of primarily vacant land, located at the southeast corner of SW Tualatin-Sherwood Road and SW 124 ${ }^{\text {th }}$ Avenue, and is zoned Manufacturing Business Park (MBP).
- The applicant requests approval of a 108,000 square foot office building, located in the center of the northerly portion of the site, a 338 stall parking area, a utility yard, and security booth at the primary vehicular access point, as well as associated hardscaping and landscaping.
- Due to PGE's operational needs for the Integrated Operations Center facility, a secure perimeter would surround the building and associated improvements.
- The site would also include a wireless telecommunications facility which was recently approved by the Tualatin Planning Commission as a Conditional Use (CUP 19-0002) with an associated Variance (VAR 19-0001) to increase the tower height and decrease the security fence setback.
- Primary vehicular access to the site is proposed via the easterly extension of Blake Street from SW $124^{\text {th }}$ Avenue to the internal site access. A secondary vehicular access point is proposed via SW $120^{\text {th }}$ Avenue from the northeast of the subject site. Final public improvements will be determined through a separate but associated Public Facilities Decision.


## OUTCOMES OF DECISION:

Approval of AR 19-0005 will facilitate construction of the PGE Integrated Operations Center development.

## ALTERNATIVES TO RECOMMENDATION:

The Architectural Review Board may alternatively:

- Approve AR 19-0005 with amended conditions of approval;
- Continue the hearing to a later date for further consideration; or
- Deny AR 19-0005.


## ATTACHMENTS:

- Analysis and Findings
- Exhibit A - Applicant's Narrative
- Exhibit B - Supporting Documents
- Exhibit C - Architectural Elevations
- Exhibit D - Site Plans
- Exhibit E - Memorandum from TVF\&R, April 25, 2019
- Exhibit F - Memorandum from Clean Water Services, June 3, 2019


## City of Tualatin www.tualatinoregon.gov

July 24, 2019

## Analysis and Findings for

AR 19-0005

| Case \#: | AR 19-0005 |
| :--- | :--- |
| Project: | PGE Integrated Operations Center (IOC) |
| Location: | 12150 SW Tualatin-Sherwood Rd, Tualatin, OR. Tax Lots: 2S127C 500 and 701 |
| Applicant: | Ben Schonberger, Winterbrook Planning |
| Owner: | Portland General Electric Company (PGE) |

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## I. INTRODUCTION

## A. Applicable Criteria

The following Chapters of the Tualatin Development Code (TDC) are applicable to the subject proposal:

- TCD 32: Procedures
- TDC 33.020: Architectural Review
- TDC 33.110: Tree Removal Permit/Review
- TDC 64: Manufacturing Business Park Zone (MBP)
- TDC 73A: Site Design
- TDC 73B: Landscaping Standards
- TDC 73C: Parking Standards
- TDC 73D: Waste and Recyclables
- TDC 73F: Wireless Communications Facilities


## B. Site Description

The subject site is a 43-acre property located at 12150 SW Tualatin-Sherwood Road (Washington County Tax Assessor Map 2S127C, Tax Lots 500 and 701), and is zoned Manufacturing Business Park (MBP).

The site has most recently been used for agriculture, and has a small collection of agricultural outbuildings and an existing house on the north side of the property. The land predominantly features open fields; approximately 12 acres at the southwestern extent is largely forested (see Figure 1, below). The land slopes from its lowest point at the northeast corner at approximately 176 feet, to a high point of about 260 feet at the southwest corner. Small wetland areas have been identified at the eastern ends of the property, which will be protected and enhanced consistent with CWS regulations.

Figure 1: Aerial view of subject site (highlighted)


## C. Proposed Integrated Operations Center (IOC)

As described in the applicant's narrative (Exhibit A, Page 1), PGE provides regional transmission and distribution services to over 40 percent of Oregon's population, mostly in the Portland metro, Salem, and neighboring counties. PGE proposes to consolidate its regional operations management and technical services on the subject 43-acre site in Tualatin. The proposed 108,000 square-foot Integrated Operations Center (IOC) functions as PGE's regional operations headquarters and is designed to achieve two key objectives: first, to minimize power supply disruptions and second, to continue to decarbonize the grid system. The center will co-locate technical staff conducting 24/7 functions relating to grid and power supply operations as well as physical and cyber security. The IOC will also contain PGE's emergency operations center, which is activated when storms or other large-scale event disrupts normal electrical operations.

As shown on the applicant's architectural elevations (Exhibit C, Sheet AR-A303), the proposed 108,000 square-foot IOC is comprised of a single building which ranges from one to two stories ( 45 feet maximum height). The building is modern in appearance, with the primary building materials consisting of metal wall panels with concealed fasteners in shades of brown. Tall rectilinear windows are provided on both levels on all sides of the building, including adjacent to entries, outdoor areas, and walkways. Cedar shiplap is proposed as an accent for soffit surfaces, an exterior canopy at the entrance, and within an exterior alcove. Accessory structures include the Wireless Communications Facility (WCF) tower, proposed as a metal lattice painted in a brown-gray shade, and a 192 square foot security booth with design and materials similar to the office building. A 12,700 square foot utility yard is proposed at the north end of the building, screened on all sides by the exterior building wall or landscaping. The surrounding vicinity includes modern industrial buildings of a similar height, featuring rectilinear massing with metal and concrete exteriors, in addition to a few agricultural structures, the neighboring quarry, and undeveloped land. The proposed design is harmonious with the existing surroundings, while also meeting the design objectives of the Manufacturing Business Park zone.

As shown on the applicant's site plan (Exhibit D, Sheet AR-G100) and Figure 2, below, the proposed 108,000 square foot building is located roughly in the center of the northern half of the property, and includes a 10,300 square-foot enclosed outdoor amenity for employees to the north of the building. A parking lot for 338 vehicles to the southwest of the building, as well as drive aisles and a manned secure access point are also proposed. A secure perimeter would surround the building and 17.6 acres of the site ( $41 \%$ of the total area). A security fence around the WCF is also proposed. Access to the site is proposed primarily from a new section of SW Blake Street intersecting with $124^{\text {th }}$ Street, approximately 1,100 feet south of its intersection with Tualatin-Sherwood Road. A secondary service and emergency vehicle access is proposed from SW $120^{\text {th }}$ Avenue. Final public improvements will be determined through the separate by associated Public Facilities Decision. Stormwater facilities are proposed to the northwest and northeast of the property, as well as access drives to provide vehicle access for facility maintenance.

## Figure 2: Site Plan (overview)


D. Previous Land Use Actions

- In January of 2019, the property was annexed to the City of Tualatin (ANN 18-0002).
- In June of 2019, the property received approval of a Conditional Use Permit for a Wireless Communications Facility (CUP 19-0002), associated with the subject facility.
- In June of 2019, the property received approval of a Variance allowing up to a 140 -foot height for a Wireless Communications Facility and a Variance allowing a 20 -foot setback for fences on site (VAR 19-0001), both of which are associated with the subject facility.


## E. Surrounding Uses

Surrounding uses indicate a transitional area including commercial services and light industrial uses. Adjacent land uses include:

North: $\quad$ General Manufacturing (MG)

- Fleet Pride
- Shields Manufacturing
- IPT (new industrial construction)
- Packaging Resources
- Columbia Corrugated Box

South: FD-20 (Unincorporated Washington County)
Tualatin Urban Planning Area; designated future Manufacturing Business Park (MBP) zone.

- Tigard Sand and Gravel

West: $\quad$ FD-20 (Unincorporated Washington County)

- Tualatin Valley Water District

East : FD-20 (Unincorporated Washington County)
Tualatin Urban Planning Area; designated future Manufacturing Business Park (MBP) zone.

- Tigard Sand and Gravel
- CR Contracting

General Manufacturing (MG)

- La-Z Boy Furniture Warehouse
- Lucky Foods
- Innovative Bakery Resources
- Western Precision Products
- Tualatin Indoor Soccer
- Ardent Mills
- Engine and Performance Warehouse
- Majestic Building (new construction)

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## F. Exhibit List

A: Applicant's Narrative
B: Supporting Documents
C: Architectural Elevations
D: Site Plans
E: Memorandum from Tualatin Valley Fire and Rescue, April 25, 2019
F: Memorandum from Clean Water Services, June 3, 2019

## II. FINDINGS

These findings reference the Tualatin Development Code (TDC), unless otherwise noted.

## Chapter 32: Procedures

Section 32.010 - Purpose and Applicability. [...]
(2) Applicability of Review Procedures. All land use and development permit applications and decisions, will be made by using the procedures contained in this Chapter. The procedure "type" assigned to each application governs the decision-making process for that permit or application. There are five types of permit/application procedures as described in subsections (a) through (e) below. Table 32-1 lists the City's land use and development applications and corresponding review procedure(s).
[...]
(c) Type III Procedure (Quasi-Judicial Review - Public Hearing). Type III procedure is used when the standards and criteria require discretion, interpretation, or policy or legal judgment. Quasi-Judicial decisions involve discretion but implement established policy. Type III decisions are made by the Planning Commission or Architectural Review Board and require public notice and a public hearing, with an opportunity for appeal to the City Council.
[...]
(3) Determination of Review Type. Unless specified in Table 32-1, the City Manager will determine whether a permit or application is processed as Type I, II, III, IV-A or IV-B based on the descriptions above. Questions regarding the appropriate procedure will be resolved in favor of the review type providing the widest notice and opportunity to participate. An applicant may choose to elevate a Type I or II application to a higher numbered review type, provided the applicant pays the appropriate fee for the selected review type.

Table 32-1 - Applications Types and Review Procedures

| Application / Action | Proced ure Type | Decision Body* | Appeal Body* | Pre- <br> Application <br> Conference <br> Required | Neighborhood /Developer Mtg Required | Applicable <br> Code <br> Chapter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Architectural Review |  |  |  |  |  |  |
| Commercial Buildings 50,000 square feet and larger <br> [...] <br> as requested by the CM | III | ARB | CC | Yes | Yes | $\begin{gathered} \text { TDC } \\ 33.020 \end{gathered}$ |
| [...] |  |  |  |  |  |  |
| * City Council (CC); Planning Commission (PC); Architectural Review Board (ARB); City Manager or designee (CM); Land Use Board of Appeals (LUBA). |  |  |  |  |  |  |

## Finding:

The proposed 108,000 square-foot commercial/office building is classified as Type III Procedure Types according to Table 32-1. The application has been processed according to the applicable code for Type III procedures. This standard is met.

Section 32.020 - Procedures for Review of Multiple Applications.
Multiple applications processed individually require the filing of separate applications for each land use action. Each application will be separately reviewed according to the applicable procedure type and processed sequentially as follows:
(1) Applications with the highest numbered procedure type must be processed first;
(2) Applications specifically referenced elsewhere in the TDC as to the particular order must be processed in that order; and
(3) Where one land use application is dependent on the approval of another land use application, the land use application upon which the other is dependent must be processed first (e.g., a conditional use permit is subject to prior approval before architectural review).

## Finding:

The overall proposal for the PGE IOC project required prior approval of Conditional Use approval for the Wireless Communications Facility (WCF), and a Variance for the WCF height, and security fence setback. A hearing for these land use reviews (CUP 19-0002 and VAR 19-0001) was held on June 20, 2019, and the land use reviews were both approved by the Tualatin Planning Commission. In this case, the approval of the Architectural Review is dependent upon prior approval of the Conditional Use and Variance applications. This standard is met.

## Section 32.030 - Time to Process Applications.

(1) Time Limit - 120-day Rule. The City must take final action on all Type II, Type III, and Type IV-A land use applications, as provided by ORS 227.178, including resolution of all local appeals, within 120 days after the application has been deemed complete under TDC 32.160, unless the applicant provides written request or consent to an extension in compliance with ORS 227.178. (Note: The 120-day rule does not apply to Type IV-B (Legislative Land Use) decisions.)
[...]
Finding:
The application was deemed complete on May 21, 2019. The $120^{\text {th }}$ day will be September 18, 2019. The hearing for AR 19-0005 is scheduled July 24, 2019. The final action will take place within the 120 days unless the applicant requests an extension in compliance with ORS 227.178. This standard is met.

## Section $\mathbf{3 2 . 1 1 0}$ - Pre-Application Conference.

(1) Purpose of Pre-Application Conferences. Pre-application conferences are intended to familiarize applicants with the requirements of the TDC; to provide applicants with an opportunity discuss proposed projects in detail with City staff; and to identify approval criteria, standards, and procedures prior to filing a land use application. The pre-application conference is intended to be a tool to assist applicants in navigating the land use process, but is not intended to be an exhaustive review that identifies or resolves all potential issues, and does not bind or preclude the City from enforcing any
applicable regulations or from applying regulations in a manner differently than may have been indicated at the time of the pre-application conference.
(2) When Mandatory. Pre-application conferences are mandatory for all land use actions identified as requiring a pre-application conference in Table 32-1. An applicant may voluntarily request a preapplication conference for any land use action even if it is not required.
(3) Timing of Pre-Application Conference. A pre-application conference must be held with City staff before an applicant submits an application and before an applicant conducts a Neighborhood/Developer meeting.
(4) Application Requirements for Pre-Application Conference.
(a) Application Form. Pre-application conference requests must be made on forms provided by the City Manager.
(b) Submittal Requirements. Pre-application conference requests must include:
(i) A completed application form;
(ii) Payment of the application fee;
(iii) The information required, if any, for the specific pre-application conference sought; and
(iv) Any additional information the applicant deems necessary to demonstrate the nature and scope of the proposal in sufficient detail to allow City staff to review and comment.
(5) Scheduling of Pre-Application Conference. Upon receipt of a complete application, the City Manager will schedule the pre-application conference. The City Manager will coordinate the involvement of city departments, as appropriate, in the pre-application conference. Pre-application conferences are not open to the general public.
(6) Validity Period for Mandatory Pre-Application Conferences; Follow-Up Conferences. A follow-up conference is required for those mandatory pre-application conferences that have previously been held when:
(a) An application relating to the proposed development that was the subject of the preapplication conference has not been submitted within six (6) months of the pre-application conference;
(b) The proposed use, layout, and/or design of the proposal have significantly changed; or
(c) The owner and/or developer of a project changes after the pre-application conference and prior to application submittal.

## Finding:

The subject land use action is identified as requiring a pre-application conference in Table 32-1. The applicant participated in a pre-application meeting on February 13, 2019, 64 days prior to submittal. These standards are met.

## Section 32.120 - Neighborhood/Developer Meetings.

(1) Purpose. The purpose of this meeting is to provide a means for the applicant and surrounding property owners to meet to review a development proposal and identify issues regarding the proposal so they can be considered prior to the application submittal. The meeting is intended to allow the developer and neighbors to share information and concerns regarding the project. The applicant may consider whether to incorporate solutions to these issues prior to application submittal.
(2) When Mandatory. Neighborhood/developer meetings are mandatory for all land use actions identified in Table 32-1 as requiring a neighborhood/developer meeting. An applicant may voluntarily conduct a neighborhood/developer meeting even if it is not required and may conduct more than one neighborhood/developer meeting at their election.
(3) Timing. A neighborhood/developer meeting must be held after a pre-application meeting with City staff, but before submittal of an application.
(4) Time and Location. Required neighborhood/developer meetings must be held within the city limits of the City of Tualatin at the following times:
(a) If scheduled on a weekday, the meeting must begin no earlier than 6:00 p.m.
(b) If scheduled on a weekend, the meeting must begin between 10:00 a.m. and 6:00 p.m.
(5) Notice Requirements.
(a) The applicant must provide notice of the meeting at least 14 calendar days and no more than 28 calendar days before the meeting. The notice must be by first class mail providing the date, time, and location of the meeting, as well as a brief description of the proposal and its location. The applicant must keep a copy of the notice to be submitted with their land use application.
(b) The applicant must mail notice of a neighborhood/developer meeting to the following persons:
(i) All property owners within 1,000 feet measured from the boundaries of the subject property;
(ii) All property owners within a platted residential subdivision that is located within 1,000 feet of the boundaries of the subject property. The notice area includes the entire subdivision and not just those lots within 1,000 feet. If the residential subdivision is one of two or more individually platted phases sharing a single subdivision name, the notice area need not include the additional phases; and
(iii) All designated representatives of recognized Citizen Involvement Organizations as established in TMC Chapter 11-9.
(c) The City will provide the applicant with labels for mailing for a fee.
(d) Failure of a property owner to receive notice does not invalidate the neighborhood/developer meeting proceedings.
(6) Neighborhood/Developer Sign Posting Requirements. The applicant must provide and post on the subject property, at least 14 calendar days before the meeting. The sign must conform to the design and placement standards established by the City for signs notifying the public of land use actions in TDC 32.150.
(7) Neighborhood/Developer Meeting Requirements. The applicant must have a sign-in sheet for all attendees to provide their name, address, telephone number, and email address and keep a copy of the sign-in sheet to provide with their land use application. The applicant must prepare meeting notes identifying the persons attending, those commenting and the substance of the comments expressed, and the major points that were discussed. The applicant must keep a copy of the meeting notes for submittal with their land use application.

## Finding:

The applicant has provided evidence within Exhibit B that they held a Neighborhood/Developer meeting on March 21, 2019, 28 days prior to application submittal. The applicant has provided documentation of
sign posting and notification in compliance with this section, as well as a sign-in sheet and notes from the meeting. These standards are met.

## Section 32.130 - Initiation of Applications.

(1) Type II, Type II, Type III, and Type IV-A Applications. Type I, Type II, Type III, and Type IV-A applications may be submitted by one or more of the following persons:
(a) The owner of the subject property;
(b) The contract purchaser of the subject property, when the application is accompanied by proof of the purchaser's status as such and by the seller's written consent;
(c) A lessee in possession of the property, when the application is accompanied by the owners' written consent; or
(d) The agent of any of the foregoing, when the application is duly authorized in writing by a person authorized to submit an application by paragraphs (a), (b) or (c) of this subsection, and accompanied by proof of the agent's authority.

## [...]

Finding:
The applicant has provided a title report within Exhibit B showing Portland General Electric Company (PGE) to be the current owner of the subject site. The application has been signed by Mark Lindley, an agent of PGE. This standard is met.

## Section 32.140 - Application Submittal.

(1) Submittal Requirements. Land use applications must be submitted on forms provided by the City. A land use application may not be accepted in partial submittals. All information supplied on the application form and accompanying the application must be complete and correct as to the applicable facts. Unless otherwise specified, all of the following must be submitted to initiate completeness review under TDC 32.160:
(a) A completed application form. The application form must contain, at a minimum, the following information:
(i) The names and addresses of the applicant(s), the owner(s) of the subject property, and any authorized representative(s) thereof;
(ii) The address or location of the subject property and its assessor's map and tax lot number;
(iii) The size of the subject property;
(iv) The comprehensive plan designation and zoning of the subject property;
(v) The type of application(s);
(vi) A brief description of the proposal; and
(vii) Signatures of the applicant(s), owner(s) of the subject property, and/or the duly authorized representative(s) thereof authorizing the filing of the application(s).
(b) A written statement addressing each applicable approval criterion and standard;
(c) Any additional information required under the TDC for the specific land use action sought;
(d) Payment of the applicable application fee(s) pursuant to the most recently adopted fee schedule;
(e) Recorded deed/land sales contract with legal description.
(f) A preliminary title report or other proof of ownership.
(g) For those applications requiring a neighborhood/developer meeting:
(i) The mailing list for the notice;
(ii) A copy of the notice;
(iii) An affidavit of the mailing and posting;
(iv) The original sign-in sheet of participants; and
(v) The meeting notes described in TDC 32.120(7).
(h) A statement as to whether any City-recognized Citizen Involvement Organizations (CIOs) whose boundaries include, or are adjacent to, the subject property were contacted in advance of filing the application and, if so, a summary of the contact. The summary must include the date when contact was made, the form of the contact and who it was with (e.g. phone conversation with neighborhood association chairperson, meeting with land use committee, presentation at neighborhood association meeting), and the result;
(i) Any additional information, as determined by the City Manager, that may be required by another provision, or for any other permit elsewhere, in the TDC, and any other information that may be required to adequately review and analyze the proposed development plan as to its conformance to the applicable criteria;
(2) Application Intake. Each application, when received, must be date-stamped with the date the application was received by the City, and designated with a receipt number and a notation of the staff person who received the application.
(3) Administrative Standards for Applications. The City Manager is authorized to establish administrative standards for application forms and submittals, including but not limited to plan details, information detail and specificity, number of copies, scale, and the form of submittal.

## Finding:

The applicant submitted the subject application on April 18, 2019. The application was deemed complete on May 21, 2019. The general land use submittal requirements were included with this application. These standards are met.

Section 32.150-Sign Posting.
(1) When Signs Posted. Signs in conformance with these standards must be posted as follows:
(a) Signs providing notice of an upcoming neighborhood/developer meeting must be posted prior to a required neighborhood/developer meeting in accordance with Section 32.120(6); and
(b) Signs providing notice of a pending land use application must be posted after land use application has been submitted for Type II, III and IV-A applications.
(2) Sign Design Requirements. The applicant must provide and post a sign(s) that conforms to the following standards:
(a) Waterproof sign materials;
(b) Sign face must be no less than eighteen (18) inches by twenty-four (24) inches (18" $\times 24$ "); and
(c) Sign text must be at least two (2) inch font.
(3) On-site Placement. The applicant must place one sign on their property along each public street frontage of the subject property. (Example: If a property adjoins four public streets, the applicant must place a sign at each of those public street frontages for a total of four signs). The applicant cannot place the sign within public right of way.
(4) Removal. If a sign providing notice of a pending land use application disappears prior to the final decision date of the subject land use application, the applicant must replace the sign within fortyeight (48) hours of discovery of the disappearance or of receipt of notice from the City of its disappearance, whichever occurs first. The applicant must remove the sign no later than fourteen (14) days after:
(a) The meeting date, in the case of signs providing notice of an upcoming neighborhood/developer meeting; or
(b) The City makes a final decision on the subject land use application, in the case of signs providing notice of a pending land use application.

## Finding:

The applicant provided certification within Exhibit B that signs in conformance with this section were placed on site in accordance with this section. This standard is met.

## Section 32.160 - Completeness Review.

(1) Duration. Except as otherwise provided under ORS 227.178, the City Manager must review an application for completeness within 30 days of its receipt.
(2) Considerations. Determination of completeness will be based upon receipt of the information required under TDC 32.140 and will not be based on opinions as to quality or accuracy. Applications that do not respond to relevant code requirements or standards can be deemed incomplete. A determination that an application is complete indicates only that the application is ready for review on its merits, not that the City will make a favorable decision on the application.
(3) Complete Applications. If an application is determined to be complete, review of the application will commence.
(4) Incomplete Applications. If an application is determined to be incomplete, the City Manager must provide written notice to the applicant identifying the specific information that is missing and allowing the applicant the opportunity to submit the missing information. An application which has been determined to be incomplete must be deemed complete for purposes of this section upon receipt of:
(a) All of the missing information;
(b) Some of the missing information and written notice from the applicant that no other information will be provided; or
(c) Written notice from the applicant that none of the missing information will be provided.
(5) Vesting. If an application was complete at the time it was first submitted, or if the applicant submits additional required information within 180 days of the date the application was first submitted, approval or denial of the application must be based upon the standards and criteria that were in effect at the time the application was first submitted.
(6) Void Applications. An application is void if the application has been on file with the City for more than 180 days and the applicant has not provided the missing information or otherwise responded, as provided in subsection (4) of this section.
[...]

## Finding:

The subject application was submitted on April 18, 2019. The applicant was deemed incomplete on May 2, 2019. The applicant subsequently addressed all incomplete items, and the application was deemed complete May 21, 2019. These standards are met.

Section 32.230 - Type III Procedure (Quasi-Judicial Review - Public Hearing).
Type III decisions involve the use of discretion and judgment and are made by the Planning Commission or Architectural Review Board after a public hearing with an opportunity for appeal to the City Council. The decision body for each application type is specified in Table 32-1. A hearing under these procedures provides a forum to apply standards to a specific set of facts to determine whether the facts conform to the applicable criteria and the resulting determination will directly affect only a small number of identifiable persons.
(1) Submittal Requirements. Type III applications must include the submittal information required by TDC 32.140(1).
(2) Determination of Completeness. After receiving an application for filing, the City Manager will review the application will for completeness in accordance with TDC 32.160.
(3) Written Notice of Public Hearing - Type III. Once the application has been deemed complete, the City must mail by regular first class mail Notice of a Public Hearing to the following individuals and agencies no fewer than $\mathbf{2 0}$ days before the hearing.
(a) Recipients:
(i) The applicant and, the owners of the subject property;
(ii) All property owners within 1,000 feet measured from the boundaries of the subject property;
(iii) All property owners within a platted residential subdivision that is located within 1,000 feet of the boundaries of the subject property. The notice area includes the entire subdivision and not just those lots within 1,000 feet. If the residential subdivision is one of two or more individually platted phases sharing a single subdivision name, the notice area need not include the additional phases;
(iv) All recognized neighborhood associations within 1,000 feet from the boundaries of the subject property;
(v) All designated representatives of recognized Citizen Involvement Organizations as established in TMC Chapter 11-9;
(vi) Any person who submits a written request to receive a notice;
(vii) Any governmental agency that is entitled to notice under an intergovernmental agreement entered into with the City and any other affected agencies, including but not limited to: school districts; fire district; where the project either adjoins or directly affects a state highway, the Oregon Department of Transportation; and where the project site would access a County road or otherwise be subject to review by the County, then the County; and Clean Water Services; Tri Met; and, ODOT Rail Division and the railroad company if a railroadhighway grade crossing provides or will provide the only access to the subject property. The failure of another agency to respond with written comments on a pending application does not invalidate an action or permit approval made by the City under this Code;
(viii) Utility companies (as applicable); and,
(ix) Members of the decision body identified in Table 32-1.
(b) The Notice of a Public Hearing, at a minimum, must contain all of the following information:
(i) The names of the applicant(s), any representative(s) thereof, and the owner(s) of the subject property;
(ii) The street address if assigned, if no street address has been assigned then Township, Range, Section, Tax Lot or Tax Lot ID;
(iii) The type of application and a concise description of the nature of the land use action;
(iv) A list of the approval criteria by TDC section for the decision and other ordinances or regulations that apply to the application at issue;
(v) Brief summary of the local decision making process for the land use decision being made and a general explanation of the requirements for submission of testimony and the procedure for conduct of hearings;
(vi) The date, time and location of the hearing;
(vii) Disclosure statement indicating that if any person fails to address the relevant approval criteria with enough detail, he or she may not be able to appeal to the Land Use Board of Appeals on that issue, and that only comments on the relevant approval criteria are considered relevant evidence;
(viii) The name of a City representative to contact and the telephone number where additional information may be obtained; and
(ix) Statement that the application and all documents and evidence submitted to the City are in the public record and available for review, and that copies can be obtained at a reasonable cost from the City; and
(x) Statement that a copy of the staff report will be available for inspection at no cost at least seven days prior to the hearing and will be provided at reasonable cost.
(c) Failure of a person or agency to receive a notice, does not invalidate any proceeding in connection with the application, provided the City can demonstrate by affidavit that required notice was given.

## Finding:

After submittal and completeness review as required by this section, notice for the Type III hearing concerning AR 19-0005 was mailed by city staff on May 29, 2019, and contained the information required by this section. These standards are met.

## (4) Conduct of the Hearing - Type III.

The person chairing the hearing must follow the order of proceedings set forth below. These procedures are intended to provide all interested persons a reasonable opportunity to participate in the hearing process and to provide for a full and impartial hearing on the application before the body. Questions concerning the propriety or the conduct of a hearing will be addressed to the chair with a request for a ruling. Rulings from the chair must, to the extent possible, carry out the stated intention of these procedures. A ruling given by the chair on such question may be modified or reversed by a majority of those members of the decision body present and eligible to vote on the application before the body. The procedures to be followed by the chair in the conduct of the hearing are as follows:
(a) At the commencement of the hearing, the person chairing the hearing must state to those in attendance all of the following information and instructions:
(i) The applicable substantive criteria;
(ii) That testimony, arguments and evidence must be directed toward the criteria described in paragraph (i) of this subsection or other criteria in the plan or land use regulation which the person believes to apply to the decision;
(iii) That failure to raise an issue accompanied by statements or evidence sufficient to afford the decision maker and the parties an opportunity to respond to the issue precludes appeal to the State Land Use Board of Appeals based on that issue;
(iv) At the conclusion of the initial evidentiary hearing, the decision body must deliberate and make a decision based on the facts and arguments in the public record; and
(v) Any participant may ask the decision body for an opportunity to present additional relevant evidence or testimony that is within the scope of the hearing; if the decision body grants the request, it will schedule a date to continue the hearing as provided in TDC 32.230(4)(e), or leave the record open for additional written evidence or testimony as provided TDC 32.230(4)(f).
(b) The public is entitled to an impartial decision body as free from potential conflicts of interest and pre-hearing ex parte (outside the hearing) contacts as reasonably possible. Where questions related to ex parte contact are concerned, members of the decision body must follow the guidance for disclosure of ex parte contacts contained in ORS 227.180. Where a real conflict of interest arises, that member or members of the decision body must not participate in the hearing, except where state law provides otherwise. Where the appearance of a conflict of interest is likely, that member or members of the decision body must individually disclose their relationship to the applicant in the public hearing and state whether they are capable of rendering a fair and impartial decision. If they are unable to render a fair and impartial decision, they must be excused from the proceedings.
(c) Presenting and receiving evidence.
(i) The decision body may set reasonable time limits for oral presentations and may limit or exclude cumulative, repetitious, irrelevant, or personally derogatory testimony or evidence;
(ii) No oral testimony will be accepted after the close of the public hearing. Written testimony may be received after the close of the public hearing only as provided by this section; and (iii) Members of the decision body may visit the property and the surrounding area, and may use information obtained during the site visit to support their decision, if the information relied upon is disclosed at the beginning of the hearing and an opportunity is provided to dispute the evidence.
(d) The decision body, in making its decision, must consider only facts and arguments in the public hearing record; except that it may take notice of facts not in the hearing record (e.g., local, state, or federal regulations; previous City decisions; case law; staff reports). Upon announcing its intention to take notice of such facts in its deliberations, it must allow persons who previously participated in the hearing to request the hearing record be reopened, as necessary, to present evidence concerning the newly presented facts.
(e) If the decision body decides to continue the hearing, the hearing must be continued to a date that is at least seven days after the date of the first evidentiary hearing (e.g., next regularly scheduled meeting). An opportunity must be provided at the continued hearing for persons to present and respond to new written evidence and oral testimony. If new written evidence is submitted at the continued hearing, any person may request, before the conclusion of the
hearing, that the record be left open for at least seven days, so that he or she can submit additional written evidence or arguments in response to the new written evidence. In the interest of time, after the close of the hearing, the decision body may limit additional testimony to arguments and not accept additional evidence.
(f) If the decision body leaves the record open for additional written testimony, the record must be left open for at least seven days after the hearing. Any participant may ask the decision body in writing for an opportunity to respond to new evidence (i.e., information not disclosed during the public hearing) submitted when the record was left open. If such a request is filed, the decision body must reopen the record, as follows:
(i) When the record is reopened to admit new evidence or arguments (testimony), any person may raise new issues that relate to that new evidence or testimony;
(ii) An extension of the hearing or record granted pursuant to this section is subject to the limitations of TDC 32.030, unless the applicant waives his or her right to a final decision being made within the required timeframe; and
(iii) If requested by the applicant, the decision body must grant the applicant at least seven days after the record is closed to all other persons to submit final written arguments, but not evidence, provided the applicant may expressly waive this right.

## Finding:

The Architectural Review Board will follow the hearing requirements set forth by this section. These standards will be met.

## (5) Notice of Adoption of a Type III Decision.

Notice of Adoption must be provided to the property owner, applicant, and any person who provided testimony at the hearing or in writing. The Type III Notice of Adoption must contain all of the following information:
(a) A description of the applicant's proposal and the City's decision on the proposal, which may be a summary, provided it references the specifics of the proposal and conditions of approval in the public record;
(b) The address or other geographic description of the property proposed for development, including a map of the property in relation to the surrounding area;
(c) A statement that a copy of the decision and complete case file, including findings, conclusions, and conditions of approval, if any, is available for review and how copies can be obtained;
(d) The date the decision becomes final, unless a request for appeal is submitted; and
(e) The notice must include an explanation of rights to appeal the decision to the City Council in accordance with TDC 32.310 .
(6) Appeal of a Type III Decision. Appeal of an Architectural Review Board or Planning Commission Type III Decision to the City Council may be made in accordance with TDC 32.310.
(7) Effective Date of a Type III Decision.
(a) The written order is the final decision on the application.
(b) The mailing date is the date of the order certifying its approval by the decision body.
(c) A decision of the Architectural Review Board or Planning Commission is final unless:
(i) a written appeal is received at the City offices within 14 calendar days of the date notice of the final decision is mailed; or
(ii) The City Manager or a member of the City Council requests a review of the decision within 14 calendar days of the date notice of the final decision is mailed.

Finding:
A final decision and any appeal will follow the requirements of this section. These standards will be met.

## Chapter 33: Applications and Approval Criteria [...]

## Section 33.020 Architectural Review

[...]
(5) Approval Criteria.
(b) General Development.
(i) Applications for General Single Family Dwellings (not clear and objective), must comply with TDC 73A. 140.
(ii) Applications for General Development must comply with the applicable standards and objectives in TDC Chapter 73A through 73G.

Finding:
The subject application, which is for "general development," must comply with the standards and objectives in TDC 73A through 73G. These standards are met by submittal of the subject application.

## (9) Permit Expiration.

Architectural Review decisions (including Minor Architectural Review decisions) expire two (2) years from the effective date unless the applicant has received a building, or grading permit submitted in conjunction with a building permit application, substantial construction has occurred pursuant to the building permit, and an inspection has been performed by a member of the Building Division.

## (10) Extension of Permit Expiration.

(a) An Architectural Review approval may be extended if the applicant, or successor interest, submits a written request for an extension of time within two (2) years of the effective date.
(b) A Minor Architectural Review approval may not be extended. A new application is required if the permit expires.
(c) Upon receipt of a request for an extension of time, the City will process the extension request as follows:
(i) If the City Manager approved the Architectural Review, then the City Manager will decide the extension request under the Type II procedures in TDC 32.220.
(ii) If the Architectural Review Board (ARB) approved the Architectural Review, then the ARB will decide the extension request under the Type III quasi-judicial procedures in TDC 32.230.
(d) The City must provide notice of the extension request to past recipients of the Architectural Review notice of decision and the applicant must post a sign pursuant to TDC 32.150.
(e) The City Manager or Architectural Review Board, as applicable, may grant the extension of time upon finding the following:
(i) The applicant submitted a written extension request prior to the expiration date;
(ii) There have been no significant changes in any conditions, ordinances, regulations or standards of the City or applicable agencies that affect the previously approved project so as to warrant its resubmittal for Architectural Review;
(iii) If the previously approved application included a special study, the applicant provided a status report includes a letter from a recognized professional that states that conditions have not changed after the original approval and that no new study is warranted; and (iv) If the site has been neglected so as to allow the site to become blighted, the deciding party must factor this into its decision.
(f) The City Manager or Architectural Review Board, as applicable, may grant or deny the extension request. The decision must be in writing and must be made within sixty ( 60 ) days of receipt of the request for extension. If the decision is to grant the extension, the extension can be no more than a single one-year extension.
(g) Upon making the decision, the City must provide notice of the extension decision as provided in TDC 32.220 for Type II decisions made by the City Manager and TDC $\mathbf{3 2 . 2 3 0}$ for Type III decisions made by the Architectural Review Board.

## Finding:

The proposed application is approved subject the compliance with the above criteria. With recommended Condition of Approval A1, these standards are met.

## Section 33.110 Tree Removal Permit/Review

(1) Purpose. To regulate the removal of trees within the City limits other than trees within the public right-of-way which are subject to TDC Chapter 74.
(2) Applicability. No person may remove a tree on private property within the City limits, unless the City grants a tree removal permit, consistent with the provisions of this Section.
[...]
(3) Procedure Type. Tree Removal Permit applications are subject to Type II Review in accordance with TDC Chapter 32. Tree Removal Permit applications submitted with an Architectural Review, Subdivision, or Partition application will be processed in conjunction with the Architectural Review, Subdivision, or Partition decision.

## Finding:

The applicant has submitted a tree plan and sufficient documentation in conjunction with the Architectural Review application. The criteria in TDC 33.110, addressed below, are the basis on approval or denial for tree removal as part of this Architectural Review. These standards are met.

## Section 33.110 Tree Removal Permit/Review Approval Criteria

(5) Approval Criteria.
(a) An applicant must satisfactorily demonstrate that at least one of the following criteria are met:
(i) The tree is diseased and:
(A) The disease threatens the structural integrity of the tree; or
(B) The disease permanently and severely diminishes the esthetic value of the tree; or
(C) The continued retention of the tree could result in other trees being infected with a disease that threatens either their structural integrity or esthetic value.
(ii) The tree represents a hazard which may include but not be limited to:
(A) The tree is in danger of falling; or
(B) Substantial portions of the tree are in danger of falling.
(iii) It is necessary to remove the tree to construct proposed improvements based on

Architectural Review approval, building permit, or approval of a Subdivision or Partition Review. (b) If none of the conditions in TDC 33.110(5)(a) are met, the certified arborist must evaluate the condition of each tree.
(i) Evergreen Trees. An evergreen tree which meets any of the following criteria as determined by a certified arborist will not be required to be retained:
(A) Trunk Condition - extensive decay and hollow; or
(B) Crown Development - unbalanced and lacking a full crown;
(ii) Deciduous Trees. A deciduous tree which meets any of the following criteria as determined by a certified arborist will not be required to be retained:
(A) Trunk Condition - extensive decay and hollow;
(B) Crown Development - unbalanced and lacking a full crown; or
(C) Structure - Two or more dead limbs.

## Finding:

The applicant proposes to remove a total 164 trees out of 581 trees surveyed over 8 inches dbh. Of those trees, 105 are proposed to be removed in order to clear way for public improvements along SW $124^{\text {th }}$ Avenue and for SW Blake Street, and therefore their removal meets criterion (a)(iii). The total also includes 51 trees proposed to be removed for private improvements, primarily the security fence, parking lot grading, and to accommodate demolition of the existing buildings at the north of the property. This tree removal meets the standards of criterion (a)(iii). Eight trees are proposed to be removed due to hazardous condition, both the six trees that are labeled as such on the site plans, and also trees 22184 and 12149. These trees meet the standard of TDC 33.110(5)(a)(ii) for removal of hazardous trees. These standards are met.

## Chapter 64: Manufacturing Business Park Zone (MBP)

[...]
Section 64.200 - Use Categories.
(1) Use Categories. Table 64-1 lists use categories Permitted Outright (P) or Conditionally Permitted (C) in the MBP zone. Use categories may also be designated as Limited ( L ) and subject to the limitations listed in Table 64-1 and restrictions identified in TDC 64.210. Limitations may restrict the specific type of use, location, size, or other characteristics of the use category. Use categories which are not listed are prohibited within the zone, except for uses which are found by the City Manager or appointee to be of a similar character and to meet the purpose of this zone, as provided in TDC 31.070.
(2) Overlay Zones. Additional uses may be allowed in a particular overlay zone. See the overlay zone Chapters for additional uses.

Table 64-1
Use Categories in the MBP Zone

| USE CATEGORY | STATUS | LIMITATIONS AND CODE REFERENCES |
| :--- | :--- | :--- |
| [...] |  |  |
| COMMERCIAL USE CATEGORIES |  |  |
| [...] | P/C (L) | Permitted uses limited, see TDC 64.210(3). |
| Office |  | Permitted uses limited to: Wireless Communication Facility <br> Attached. |
| INFRASTRUCTURE AND UTILITIES USE CATEGORIES |  |  |
|  |  |  |
| Wireless Communication Facility | P/C (L) | Conditional uses limited to: Wireless Communication <br> Facility. Subject to maximum height and minimum setback <br> standards defined by TDC Chapter 73F. |

[...]
(3) Offices. Office uses are a permitted or conditional use as follows:
(a) Permitted Uses.
(i) Research and Development Offices. Research and development offices and laboratories for chemical, engineering, and physical sciences; medical and pharmaceutical products; alternative energy production from sources such as solar and wind; industrial products and consumer products.
(ii) Headquarters Offices. Corporate, regional, or district office headquarters are permitted outright if the headquarters is for any use permitted in this Code, the offices occupy at least 20,000 square feet, and no manufacturing is conducted that is otherwise not a permitted use in the MBP zone.

## Finding:

The proposed use is categorized as a "Headquarters Office"; offices are proposed over 20,000 square feet. The proposed WCF has been approved through CUP 19-0002, and the design standards for this use are addressed below at TDC 73F. This standard is met.

Section 64.300 - Development Standards.
Development standards in the MBP zone are listed in Table 64-2. Additional standards may apply to some uses and situations, see TDC 64.310.

Table 64-2
Development Standards in the MBP Zone

|  | Standard |  | Proposed |
| :---: | :---: | :---: | :---: |
| MINIMUM SETBACKS |  |  |  |
| Front | 30-50 feet |  | >50 feet |
| Side | 0-100 feet |  | >100 feet |
| Side | 0-100 feet |  | >100 feet |
| Rear | 0-100 feet |  | >100 feet |
| Fences | 50 feet | From public right-of-way. | Set by Variance VAR 19-0001 |
| STRUCTURE HEIGHT |  |  |  |
| Maximum Height | 65 feet | May be increased to $\mathbf{8 5}$ feet if yards adjacent to structure are not less than a distance equal to one and one-half times the height of the structure. <br> Flagpoles may extend to 100 feet. | 45 feet |

## [...]

(6) Setbacks for Conditional Uses. Setback requirements for conditional uses must be as determined and approved through the Conditional Use Permit process in accordance with TDC Chapter 33 and the Architectural Review process in accordance with TDC Chapter 33 and TDC Chapter 73A through 73F. However, no setback greater than 50 feet may be required.

## Finding:

The proposed use complies with all applicable dimensional standards in Table 64-2, above, except that the perimeter fence is permitted to be within 20 feet of the right-of-way, as approved through approved through a Variance (VAR 19-0001). In addition, the Conditional Use approval for the WCF (CUP 19-0002) set a minimum setback of 50 feet, though greater setback than 50 feet is proposed (Exhibit D, Sheet ARL103). These standards are met.

## Chapter 73A: Site Design

Section 73A. 300 - Commercial Design Standards.
The following standards are minimum requirements for commercial development in all zones:
(1) Walkways. Commercial development must provide walkways as follows:
(a) Walkways must be a minimum of 6 feet in width;
(b) Walkways must be constructed of asphalt, concrete, or a pervious surface such as pavers or grasscrete (not gravel or woody material);
(c) Walkways must meet ADA standards applicable at time of construction or alteration;
(d) Walkways must be provided between the main building entrances and other on-site buildings, accessways, and sidewalks along the public right-of-way;
(e) Walkways through parking areas, drive aisles, and loading areas must be visibly raised and of a different appearance than the adjacent paved vehicular areas;
(f) Bikeways must be provided that link building entrances and bike facilities on the site with adjoining public right-of-way and accessways; and
(g) Outdoor Recreation Access Routes must be provided between the development's walkway and bikeway circulation system and parks, bikeways and greenways where a bike or pedestrian path is designated.

## Finding:

A walkway is proposed wrapping along the west and south edge of the parking lot. The walkway is separated from the vehicle area by a strip of landscaping, and is at least 6 feet wide, with opportunities to connect with the walkway at each row. Cyclists will be encouraged to use the main drive aisle and connect to bike facilities made available at the main entrance. These standards are met.

## [...]

(4) Safety and Security. Commercial development must provide safety and security features as follows:
(a) Locate windows and provide lighting in a manner that enables tenants, employees, and police to watch over pedestrian, parking, and loading areas;
(b) Locate windows and interior lighting to enable surveillance of interior activity from the public right-of-way;
(c) Locate, orient, and select exterior lighting to facilitate surveillance of on-site activities from the public right-of-way without shining into public rights-of-way or fish and wildlife habitat areas;
(d) Provide an identification system which clearly locates buildings and their entries for patrons and emergency services; and
[...]
Finding:

As a secure facility, the IOC is designed with space for 24 -hour security staff. As seen on the elevation plans, Sheet AR-A303 (Exhibit C) windows are provided throughout the office, resulting in ample opportunity for mutual surveillance within the secure area. As shown on the photometric plans, Sheet AR-EO20 A through $G$ (Exhibit D), lighting is provided consistently around the outside security perimeter which is visible from the surrounding rights-of-way, without glaring into the streets or habitat areas. With recommended Condition of Approval A7 for identification of building meeting standards for emergency services, these standards are met.
(5) Service, Delivery, and Screening. Commercial development must provide service, delivery, and screening features as follows:
(a) Above grade and on-grade electrical and mechanical equipment such as transformers, heat pumps and air conditioners must be screened with sight obscuring fences, walls or landscaping;
(b) Outdoor storage must be screened with a sight obscuring fence, wall, berm or dense evergreen landscaping; and
(c) Above ground pumping stations, pressure reading stations, water reservoirs; electrical substations, and above ground natural gas pumping stations must be screened with sightobscuring fences or walls and landscaping.

## Finding:

As shown on building elevations, AR-A303 (Exhibit C), parapets are provided for rooftop mechanical screening. Air-handling units will be enclosed in penthouses in the east wing of the building. Equipment within the outdoor mechanical/utility yard is to be screened by landscaping trees as shown on AR-L200. With recommended Condition of Approval A5 specifying the range of allowable landscaping options, these standards are met.
(6) Adjacent to Transit. Commercial development adjacent to transit must comply with the following:
(a) Development on a transit street designated in TDC Chapter 11 (Figure 11-5) must provide either a transit stop pad on-site, or an on-site or public sidewalk connection to a transit stop along the subject property's frontage on the transit street.
[...]

## Finding:

SW Tualatin-Sherwood Road is designated as a transit street in TDC Chapter 11 Figure 11-5. There is no existing bus stop along the frontage of this property. Sidewalk improvements are proposed along SW $124^{\text {th }}$ that would connect to the sidewalk along SW Tualatin-Sherwood Road, providing connection to the nearest transit stops with consistent sidewalk along the property frontage. This standard is met.

## Chapter 73B: Landscaping Standards

## Section 73B. 020 - Landscape Area Standards Minimum Areas by Use and Zone.

Excerpted from 73B.020

| Zone | Minimum Area <br> Requirement* | Minimum Area Requirement <br> with dedication for a fish <br> and wildlife habitat* |
| :--- | :--- | :--- |
| $[. .]$. |  | Not applicable |
| (6) Industrial Business Park Overlay District <br> and MBP - must be approved through <br> Industrial Master Plans | 20\% of the total <br> area to be <br> developed | N |

## Finding:

As shown in the landscaping plans, Sheets AR L200 through L205 (Exhibit D), 383,000 square feet of landscaping is provided within the main development area. This development area has been identified as the area within the security fence and the driveways. The landscape area represents $44 \%$ of this main development area. There are additional development areas to the north of the security fence, where demolition, tree removal, and new water quality facilities are proposed. The remaining site area will be left vegetated well over the $20 \%$ threshold, and the water quality facilities will provide additional landscaping. This standard is met.

## Section 73B. 040 - Additional Minimum Landscaping Requirements for Commercial Uses.

(1) General. In addition to requirements in TDC 73B.020, commercial uses must comply with the following:
(a) All areas not occupied by buildings, parking spaces, driveways, drive aisles, pedestrian areas, or undisturbed natural areas must be landscaped.
[...]

## Finding:

The main development area complies to this standard; landscaping is provided in all areas not otherwise occupied by buildings and amenities. All other areas impacted by grading are proposed to be planted with a hydroseed "ecoprarie" mix of seeds as described on Sheet AR-L200 (Exhibit D). With recommended Condition of Approval A6 that the area of existing buildings, to be demolished, also be revegetated with the hydroseed ecoprarie mix, this standard is met.
(b) Minimum 5-foot-wide landscaped area must be located along all building perimeters viewable by the general public from parking lots or the public right-of-way, but the following may be used instead of the 5-foot-wide landscaped area requirement:
(i) Pedestrian amenities such as landscaped plazas and arcades; and
(ii) Areas developed with pavers, bricks, or other surfaces, for exclusive pedestrian use and contain pedestrian amenities, such as benches, tables with umbrellas, children's play areas, shade trees, canopies.
(c) 5-foot-wide landscaped area requirement does not apply to:
(i) loading areas,
(ii) bicycle parking areas,
(iii) pedestrian egress/ingress locations, and
(iv) where the distance along a wall between two vehicle or pedestrian access openings (such as entry doors, garage doors, carports and pedestrian corridors) is less than 8 feet.

## Finding:

The office building is buffered with at least five feet of landscaping or pedestrian amenity areas consistently around the building. This standard is met.

Section 73B. 070 - Minimum Landscaping Standards for All Zones. The following are minimum standards for landscaping for all zones.

| Standards |  |
| :---: | :---: |
| (1) Required <br> Landscape Areas | - Must be designed, constructed, installed, and maintained so that within three years the ground must be covered by living grass or other plant materials. <br> - The foliage crown of trees cannot be used to meet this requirement. <br> - A maximum of $10 \%$ of the landscaped area may be covered with un-vegetated areas of bark chips, rock or stone. <br> - Must be installed in accordance with the provisions of the American National Standards Institute ANSI A300 (Part 1) (Latest Edition). <br> - Must be controlled by pruning, trimming, or otherwise so that: <br> - It will not interfere with designated pedestrian or vehicular access; and <br> - It will not constitute a traffic hazard because of reduced visibility. |

## Finding:

The density of plantings as shown on Sheet AR-L200 (Exhibit D) is sufficient to provide full coverage of landscaping within three years. Of the total landscaping, less than $10 \%$ is shown to be "open" between plants and filled with mulch or bark chips. These standards are met.

| (2) Fences | Landscape plans that include fences must integrate any fencing into the plan to guide <br> wild animals toward animal crossings under, over, or around transportation corridors. |
| :--- | :--- |

## Finding:

The perimeter security fence will generally deter wild animals from entering most of the site. A sufficient unrestricted parameter exists as to not to necessarily steer animals to the adjacent transportation corridors. This standard is met.
(3) Tree Preservation

- Trees and other plant materials to be retained must be identified on the landscape plan and grading plan.
During construction:
- Must provide above and below ground protection for existing trees and plant materials identified to remain;
- Trees and plant materials identified for preservation must be protected by chain link or other sturdy fencing placed around the tree at the drip line;
- If it is necessary to fence within the drip line, such fencing must be specified by a qualified arborist;
- Top soil storage and construction material storage must not be located within the drip line of trees designated to be preserved;
- Where site conditions make necessary a grading, building, paving, trenching, boring, digging, or other similar encroachment upon a preserved tree's dripline area, such grading, paving, trenching, boring, digging, or similar encroachment must only be permitted under the direction of a qualified arborist. Such direction must assure that the health needs of trees within the preserved area can be met; and
- Tree root ends must not remain exposed.
- Landscaping under preserved trees must be compatible with the retention and health of the preserved tree.
- When it is necessary for a preserved tree to be removed in accordance with TDC 33.110 (Tree Removal Permit) the landscaped area surrounding the tree or trees must be maintained and replanted with trees that relate to the present landscape plan, or if there is no landscape plan, then trees that are complementary with existing, landscape materials. Native trees are encouraged
- $100 \%$ of the area preserved under any tree or group of trees (Except for impervious surface areas) retained in the landscape plan must apply directly to the percentage of landscaping required for a development


## Finding:

Trees to be retained have been identified on a tree preservation plan on sheets AR-L301 and AR-L302 (Exhibit D), and a separate tree protection fencing plan has been submitted on sheets MG-L551 and MGL552 (Exhibit D). As shown, sturdy fencing is proposed for most tree preservation north of the proposed location for SW Blake Street. For trees 16205, 16208, 16067, 16123, and 16058, an alternative approach is proposed: trees would be individually fenced with the option to move the fencing to accommodate nearby development activity. With recommended Condition of Approval A3, these standards are met.

|  | - After completion of site grading, top-soil is to be restored to exposed cut and |
| :--- | :--- | :--- |
| (4) Grading | fill areas to provide a suitable base for seeding and planting. |
|  | -All planting areas must be graded to provide positive drainage. <br> Soil, water, plant materials, mulch, or other materials must not be allowed to <br> wash across roadways or walkways. |
|  | -Impervious surface drainage must be directed away from pedestrian <br> walkways, dwelling units, buildings, outdoor private and shared areas and |

> landscape areas except where the landscape area is a water quality facility.

## Finding:

The applicant proposes to hydroseed all exposed areas remaining after grading. This standard is met.

|  | $\bullet$ | Landscaped areas must be irrigated with an automatic underground or drip <br> irrigation system |
| :--- | :--- | :--- |
| (5) Irrigation | •Exceptions: Irrigation requirement does not apply to duplexes and <br> townhouses. |  |

## Finding:

Irrigation is proposed in new landscaping areas, except where the Oak Savannah seed mix is applied due to the drought-resistant nature of the proposed plantings. This standard is met.

|  | -Vegetation must be replanted in all areas where vegetation has been removed <br> or damaged in areas not affected by the landscaping requirements and that <br> are not to be occupied by structures or other improvements, |
| :--- | :--- |
| (6) Re-vegetation in <br> Un-landscaped <br> Areas | Plant materials must be watered at intervals sufficient to ensure survival and <br> growth for a minimum of two growing seasons. |
|  | -The use of native plant materials is encouraged to reduce irrigation and <br> maintenance demands. |
| -Disturbed soils should be amended to an original or higher level of porosity to <br> regain infiltration and stormwater storage capacity. |  |

Finding:
With recommended Condition of Approval A6, this standard is met.

## Section 73B. 080 - Minimum Standards Trees and Plants.

The following minimum standards apply to the types of landscaping required to be installed for all zones.

| Standard |  |  |
| :---: | :---: | :---: |
| (1) Deciduous Shade Trees | - One and on-half inch caliper measured six inches above ground; <br> - Balled and burlapped; bare root trees will be acceptable to plant during their dormant season; <br> - Reach a mature height of $\mathbf{3 0}$ feet or more; <br> - Cast moderate to dense shade in summer; <br> - Live over 60 years; <br> - Do well in urban environments, tolerant of pollution and heat, and resistant to drought; <br> - Require little maintenance and mechanically strong; <br> - Insect- and disease-resistant; |  |


|  | - Require little pruning; and <br> - Barren of fruit production. |  |
| :---: | :---: | :---: |
| (2) Deciduous Ornamental Trees | - One and on-half inch caliper measured six inches above ground; <br> - balled and burlapped; bare root trees will be acceptable to plant during their dormant season; and <br> - Healthy, disease-free, damage-free, well-branched stock, characteristic of the species |  |
| (3) Coniferous Trees | - 5 feet in height above ground; <br> - balled and burlapped; bare root trees will be acceptable to plant during their dormant season; and <br> - Healthy, disease-free, damage-free, well-branched stock, characteristic of the species. |  |
| (4) Evergreen and Deciduous Shrubs | - One to five gallon size; <br> - Healthy, disease-free, damage-free, well-branched stock, characteristic of the species; and <br> - Side of shrub with best foliage must be oriented to public view. |  |
| (5) Groundcovers | - Fully rooted; <br> - Well branched or leafed; <br> - Healthy, disease-free, damage-free, well-branched stock, characteristic of the species; and <br> - English ivy (Hedera helix) is prohibited. |  |
| (6) Lawns | - Consist of grasses, including sod, or seeds of acceptable mix within the local landscape industry; <br> - $\mathbf{1 0 0}$ percent coverage and weed free; and <br> - Healthy, disease-free, damage-free, characteristic of the species. |  |

## Finding:

As shown in the charts provided on Sheet AR-L200 (Exhibit D), trees, shrubs, and lawn areas would meet each of these standards. With recommended Condition of Approval A5, providing further definition regarding the specific mix of plants proposed, this standard is met.

## Chapter 73C: Parking Standards

## Section 73C. 020 - Parking Lot Design Standards.

A parking lot, whether an accessory or principal use, intended for the parking of automobiles or trucks, must comply with the following:
(1) Off-street parking lot design must comply with the dimensional standards set forth in Figure 73-1; [...]
(2) Parking lot drive aisles must be constructed of asphalt, concrete, or pervious concrete;
(3) Parking stalls must be constructed of asphalt, concrete, previous concrete, or a pervious surface such as pavers or grasscrete, but not gravel or woody material. Pervious surfaces, are encouraged for parking stalls in or abutting the Natural Resource Protection Overlay District, Other Natural Areas, or in a Clean Water Services Vegetated Corridor;
(4) Parking lots must be maintained adequately for all-weather use and drained to avoid water flow across sidewalks;
(5) Parking bumpers or wheel stops or curbing must be provided to prevent cars from encroaching on adjacent landscaped areas, or adjacent pedestrian walkways.

## Finding:

As shown on Parking and Circulation Plan, Sheet AR-G110 (Exhibit D), parking stalls are to be 18.5 feet by 9 feet as shown for 90-degree parking in Figure 73-1. Parking stalls and drive aisles are to be composed of asphalt. Spaces are provided with either curbs or wheel stops. These standards are met.
(6) Disability parking spaces and accessibility must meet ADA standards applicable at time of construction or alteration;
(7) Parking stalls for sub-compact vehicles must not exceed 35 percent of the total parking stalls required by TDC 73C.100. Stalls in excess of the number required by TDC 73C. 100 can be sub-compact stalls;

## Finding:

The Parking and Circulation Plan, Sheet AR-G110 (Exhibit D), shows eight ADA compliant parking spaces, including two van spaces. There are no subcompact stalls proposed. ADA standards will be reviewed in greater detail during the building permit phase. These standards are met.
(8) Groups of more than 4 parking spaces must be so located and served by driveways that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley;
(9) Drives to off-street parking areas must be designed and constructed to facilitate the flow of traffic, provide maximum safety of traffic access and egress, and maximum safety of pedestrians and vehicular traffic on the site;
(10) On-site drive aisles without parking spaces, which provide access to parking areas with regular spaces or with a mix of regular and sub-compact spaces, must have a minimum width of 22 feet for two-way traffic and 12 feet for one-way traffic; When 90 degree stalls are located on both sides of a drive aisle, a minimum of $\mathbf{2 4}$ feet of aisle is required. On-site drive aisles without parking spaces,
which provide access to parking areas with only sub-compact spaces, must have a minimum width of 20 feet for two-way traffic and 12 feet for one-way traffic;

## Finding:

The design of the main parking lot will require no movements on the public street. Six parking spaces are proposed outside of the security area for visitors and security that will back on the private drive area. The westernmost drive aisle without parking is 26 feet wide. Drive aisles between stalls are at least 24 feet wide. The private drive to the parking area has been designed to provide a clear direction of traffic, with directional separation at the security gate, while pedestrian facilities are separated from the drive. These standards are met.
(11) Artificial lighting, must be deflected to not shine or create glare in a residential zones, street right-of-way, a Natural Resource Protection Overlay District, Other Natural Areas, or a Clean Water Services Vegetated Corridor;
(12) Parking lot landscaping must be provided pursuant to the requirements of TDC 73C.200; and
(13) Except for parking to serve residential uses, parking areas adjacent to or within residential zones or adjacent to residential uses must be designed to minimize disturbance of residents.

## Finding:

As shown in photometric plan, Sheets AR-E202 A-G (Exhibit D), lighting on site will not shine or glare off site or into designated Clean Water Services vegetated corridors. Parking lot landscaping is discussed below in TDC 73C.200. These standards are met.

## Section 73C. 050 - Bicycle Parking Requirements and Standards.

(1) Requirements. Bicycle parking facilities must include:
(a) Long-term parking that consists of covered, secure stationary racks, lockable enclosures, or rooms in which the bicycle is stored;
(i) Long-term bicycle parking facilities may be provided inside a building in suitable secure and accessible locations.
(b) Short-term parking provided by secure stationary racks (covered or not covered), which accommodate a bicyclist's lock securing the frame and both wheels.
(2) Standards. Bicycle parking must comply with the following:
(a) Each bicycle parking space must be at least six feet long and two feet wide, with overhead clearance in covered areas must be at least seven feet;
(b) A five (5) foot-wide bicycle maneuvering area must be provided beside or between each row of bicycle parking. It must be constructed of concrete, asphalt, or a pervious hard surface such as pavers or grasscrete, and be maintained;
(c) Access to bicycle parking must be provided by an area at least three feet in width. It must be constructed of concrete, asphalt, or a pervious hard surface such as pavers or grasscrete, and be maintained;
(d) Bicycle parking areas and facilities must be identified with appropriate signing as specified in the Manual on Uniform Traffic Control Devices (MUTCD) (latest edition). At a minimum, bicycle
parking signs must be located at the main entrance and at the location of the bicycle parking facilities;
(e) Bicycle parking must be located in convenient, secure, and well-lighted locations approved through the Architectural Review process. Lighting, which may be provided, must be deflected to not shine or create glare into street rights-of-way or fish and wildlife habitat areas;
(f) Required bicycle parking spaces must be provided at no cost to the bicyclist, or with only a nominal charge for key deposits, etc. This does not preclude the operation of private for-profit bicycle parking businesses;
(g) Bicycle parking may be provided within the public right-of-way in the Core Area Parking District subject to approval of the City Engineer and provided it meets the other requirements for bicycle parking; and
(h) The City Manager or the Architectural Review Board may approve a form of bicycle parking not specified in these provisions but that meets the needs of long-term and/or short-term parking pursuant to Architectural Review.

## Finding:

The bike parking dimensions and locations as shown on Sheet AR-G110 (Exhibit D). The proposed bike parking areas provide both indoor and outdoor opportunities for parking that are secure, well lit, and proximate to one of the main building entrances. Bike parking spaces meet and exceed the minimum dimensions, and are accessible by a 6-foot wide path. With recommended Condition of Approval A8, requiring MUTCD signage, these standards are met.

Section 73C.100 - Off-Street Parking Minimum/Maximum Requirements.

| USE | MINIMUM <br> MOTOR VEHICLE <br> PARKING | MAXIMUM <br> MOTOR VEHICLE <br> PARKING | BICYCLE PARKING | PERCENTAGE OF <br> BICYCLE <br> PARKING TO BE <br> COVERED |
| :--- | :--- | :--- | :--- | :--- |
| (e) Commercial |  | Zone A: 3.4 spaces <br> per 1,000 square <br> feet of gross floor <br> area | 2, or 0.50 spaces <br> per 1,000 gross <br> square feet, <br> whichever is <br> greater | First 10 spaces or <br> (vi) General office whichever is <br> greater |
|  | 2.70 spaces per <br> 1,000 square feet <br> of gross floor area | Zone B: 4.1 spaces <br> per 1,000 square <br> feet of gross floor <br> area |  |  |

## Finding:

For a 108,000 square foot office, 292 parking spaces are required; 338 are proposed. Additionally, 54 bike parking spaces are required by code, 22 of which must be covered. The site will provide 22 long-term bike parking spaces inside the building, as well as 32 staple bike rack spaces outside the main entrance
as shown on Sheet AR-G110 (Exhibit D). With recommended Condition of Approval A5, these standards are met.
(2) In addition to the general parking requirements in subsection (1), the following are the minimum number of off-street vanpool and carpool parking for commercial, institutional, and industrial uses.

| Number of Required Parking Spaces | Number of Vanpool or Carpool Spaces |
| :--- | :--- |
| 0 to 10 | 1 |
| 10 to 25 | 2 |
| 26 and greater | 1 for each 25 spaces |

## [...]

## Finding:

Since 292 parking spaces are required, 11 are required to be carpool/vanpool spaces. Fourteen carpool/vanpool spaces are proposed. This standard is met.

## Section 73C. 120 - Off-Street Loading Facilities Minimum Requirements.

(1) The minimum number of off-street loading berths for commercial, industrial, and institutional uses is as follows:

| Use | Square Feet of <br> Floor Area | Number of Berths | Dimensions of <br> Berth | Unobstructed <br> Clearance of Berth |
| :--- | :--- | :--- | :--- | :--- |
| Industrial |  |  |  |  |
| 60,000 and over | 3 | 12 feet $\times 35$ feet | 14 feet | 60,000 and over |

(2) Loading berths must not use the public right-of-way as part of the required off-street loading area.
(3) Required loading areas must be screened from public view, public streets, and adjacent properties by means of sight-obscuring landscaping, walls or other means, as approved through the Architectural Review process.
(4) Required loading facilities must be installed prior to final building inspection and must be permanently maintained as a condition of use.
(5) The off-street loading facilities must in all cases be on the same lot or parcel as the structure they are intended to serve. In no case must the required off-street loading spaces be part of the area used to satisfy the off-street parking requirements.
[...]
Finding:
As shown on Sheet AR-G110 (Exhibit D), one loading berth is proposed east of the building in the parking lot, and two loading berths are proposed on the west side of the building off of the west service drive. Each of these berths meets the required dimensions and are effectively screened by landscaping both within and without the security fencing, as well as the building itself. These standards are met.

Section 73C. 130 - Parking Lot Driveway and Walkway Minimum Requirements. Parking lot driveways and walkways must comply with the following requirements:
[...]
(2) Commercial Uses. Ingress and egress for industrial uses must not be less than the following:

| Required Parking Spaces | Minimum Number <br> Required | Minimum <br> Pavement Width | Minimum Pavement Walkways, <br> Etc. |
| :--- | :--- | :--- | :--- |
| $[\ldots]$ |  |  |  |
| Over $\mathbf{2 5 0}$ | As required by City <br> Manager | As required by City <br> Manager | As required by City Manager |
| $[.]$. |  |  |  |

Finding:
The site provide two points of ingress and egress, though, due to the secure nature of the facility, only one entrance will be available to most users. The site design provides a long private driveway to ameliorate the impacts of queuing at the security gate. A separated pedestrian pathway, 6 feet wide, is provided along the drive, connecting to SW $124^{\text {th }}$ Ave. This standard is met.
(6) Maximum Driveway Widths and Other Requirements.
(a) Unless otherwise provided in this chapter, maximum driveway widths for Commercial, Industrial, and Institutional uses must not exceed 40 feet.
(b) Driveways must not be constructed within 5 feet of an adjacent property line, unless the two adjacent property owners elect to provide joint access to their respective properties, as provided by TDC73C.040.
(c) The provisions of subsection (b) do not apply to townhouses and duplexes, which are allowed to construct driveways within 5 feet of adjacent property lines.
(d) There must be a minimum distance of 40 feet between any two adjacent driveways on a single property unless a lesser distance is approved by the City Manager.
(e) Must comply with the distance requirements for access as provided in TDC 75.
(f) Must comply with vision clearance requirements in TDC 75.

Finding:
No driveways are greater than 40 feet wide or within 5 feet of an adjacent property line. One driveway is proposed from SW Blake Street, and one from SW $120^{\text {th }}$. The standards of TDC 75 are addressed in the Public Facilities Review. These standards are met.

## PARKING LOT LANDSCAPING

## Section 73C.200 - Parking Lot Landscaping Standards Purpose and Applicability.

(1) Purpose. The goals of the off-street parking lot standards are to create shaded areas in parking lots, to reduce glare and heat buildup, provide visual relief within paved parking areas, emphasize circulation patterns, reduce the total number of spaces, reduce the impervious surface area and stormwater runoff, and enhance the visual environment. The design of the off-street parking area must be the responsibility of the developer and should consider visibility of signage, traffic circulation, comfortable pedestrian access, and aesthetics.
(2) Applicability. Off-street parking lot landscaping standards apply to any surface vehicle parking or circulation area.

Section 73C.220 - Commercial Parking Lot Landscaping Requirements. Industrial uses must comply with the following landscaping requirements for parking lots in all zones.
(1) General. Locate landscaping or approved substitute materials in all areas not necessary for vehicular parking and maneuvering

## Finding:

The parking lot contains landscaping in areas not uses for vehicles and pedestrian movement. This standard is met.
(2) Clear Zone. Clear zone required for the driver at ends of on-site drive aisles and at driveway entrances, vertically between a maximum of $\mathbf{3 0}$ inches and a minimum of 8 feet as measured from the ground level.

## Finding:

With recommended Condition of Approval A5, clarifying the proposed tree species planted at drive aisles and driveway entrances, this standard is met.
(3) Perimeter. Minimum 5 feet in width in all off-street parking and vehicular circulation areas, including loading areas and must comply with the following:
(a) Deciduous trees located not more than 30 feet apart on average as measured on center;
(b) Shrubs or ground cover, planted so as to achieve 90 percent coverage within three years;
(c) Plantings which reach a mature height of $\mathbf{3 0}$ inches in three years which provide screening of vehicular headlights year round;
(d) Native trees and shrubs are encouraged; and
(e) Exception: Not required where off-street parking areas on separate lots are adjacent to one another and connected by vehicular access.

## Finding:

As shown on Sheet AR-L200 (Exhibit D), the smallest landscape area surrounding the parking lot is at the south end, where 5 feet of landscaping is provided before the pedestrian path, before an additional 5 feet of landscaping to the security fence. A greater extent of landscaping is provided on all other sides except where the parking lot meets the building. Landscaping includes tree, shrubs, and seed planting that should reach a mature height within 3 years. With recommended Condition of Approval A5, showing that only deciduous trees are selected for parking area perimeter landscaping, this standard is met.
(4) Landscape Island. Minimum 25 square feet per parking stall must be improved with landscape island areas and must comply with the following.
(a) May be lower than the surrounding parking surface to allow them to receive stormwater run-off and function as water quality facilities as well as parking lot landscaping;
(b) Must be protected from vehicles by curbs, but the curbs may have spaces to allow drainage into the islands;
(c) Islands must be utilized at aisle ends to protect parked vehicles from moving vehicles and emphasize vehicular circulation patterns;
(d) Landscape separation required for every eight continuous spaces in a row;
(e) Must be planted with one deciduous shade trees for every four parking spaces; Required trees must be evenly dispersed throughout the parking lot;
(f) Must be planted with groundcover or shrubs;
(g) Native plant materials are encouraged;
(h) Landscape island areas with trees must be a minimum of 5 feet in width (from inside of curb to curb);
(i) Required plant material in landscape islands must achieve 90 percent coverage within three years; and
[...]

## Finding:

Given 338 parking spaces, 8,450 square feet of parking lot landscape island area is required. As shown on Sheet AR-G110 (Exhibit D), approximately 18,450 square feet is provided. Islands are protected by curbs. Islands are provided at least every 8 spaces and at aisle ends. Islands with trees are at least five feet wide. Based on the proposed 338 vehicle parking spaces, 85 parking lot trees are required. As shown on Sheet AR-L200 (Exhibit D), 94 are provided throughout the main parking area. With recommended Condition of Approval A5, these standards are met.

## Chapter 73D: Waste and Recyclables Management Standards

## Section 73D. 010 - Applicability and Objectives.

(1) Applicability. The requirements of this Chapter apply to all new or expanded:
(a) Common wall residential developments containing five or more units;
(b) Commercial developments;
(c) Industrial developments; and
(d) Institutional developments.
(2) Objectives. Mixed solid waste and source separated recyclable storage areas should be designed to the maximum extent practicable to:
(a) Screen elements such as garbage and recycling containers from view;
(b) Ensure storage areas are centrally located and easy to use;
(c) Meet dimensional and access requirements for haulers;
(d) Designed to mitigate the visual impacts of storage areas;
(e) Provide adequate storage for mixed solid waste and source separated recyclables; and
(f) Improve the efficiency of collection of mixed solid waste and source separated recyclables.

## Section 73D. 020 - Design Methods.

An applicant required to provide mixed solid waste and source separated recyclables storage areas must comply with one of following methods:
(1) The minimum standards method in TDC 73D.030;
(2) The waste assessment method in TDC 73D.040;
(3) The comprehensive recycling plan method in TDC 73D.050; or
(4) The franchised hauler review method in TDC 73D.060.

## Finding:

The applicant proposes to use the Minimum Standards Method (TDC 73D.030) and has verified that the location and configuration of the proposed waste facility and access will satisfy Republic Services. As discussed below, these standards are met.

Section 73D. 030 - Minimum Standards Method.
This method specifies a minimum storage area requirement based on the size and general use category of the new or expanded development. This method is most appropriate when specific use of a new or expanded development is not known. It provides specific dimensional standards for the minimum size of storage areas by general use category.
(1) The size and location of the storage area(s) must be indicated on the site plan. Requirements are based on an assumed storage area height of four feet for mixed solid waste and source separated recyclables. Vertical storage higher than four feet, but no higher than 7 feet may be used to accommodate the same volume of storage in a reduced floor space (potential reduction of 43 percent of specific requirements). Where vertical or stacked storage is proposed, submitted plans must include drawings to illustrate the layout of the storage area and dimensions for containers.
(2) The storage area requirement is based on uses. If a building has more than one use and that use occupies 20 percent or less of the gross leasable area (GLA) of the building, the GLA occupied by that use must be counted toward the floor area of the predominant use(s). If a building has more than one use and that use occupies more than $\mathbf{2 0}$ percent of the GLA of the building, then the storage area requirement for the whole building must be the sum of the area of each use. Minimum storage area requirements by use is as follows:
(a) Common wall residential 5-10 units must provide 50 square feet.
(b) Common wall residential greater than 10 units must provide 50 square feet plus an (additional 5 square feet per unit above 10.
(c) Commercial, industrial, and institutional developments must provide a minimum storage area of $\mathbf{1 0}$ square feet plus:
(i) Office - 4 square feet/ 1000 square feet gross leasable area (GLA);
(ii) Retail - $\mathbf{1 0}$ square feet/1000 square feet GLA;
(iii) Wholesale/ Warehouse/ Manufacturing - 6 square feet/1000 square feet GLA;
(iv) Educational and Institutional - 4 square feet/ 1000 square feet GLA; and
(v) All other uses- $\mathbf{4}$ square feet/ 1000 square feet GLA.
(3) Mixed solid waste and source separated recyclables storage areas for multiple tenants on a single site may be combined and shared.

## Finding:

As shown on Sheet AR-G110 (Exhibit D) the trash enclosure is proposed to east of the building at the north of the main parking lot. For a 108,000 square foot office, a waste area of 432 square feet would be required; as shown on Sheet AR-A120 (Exhibit D) this same area is proposed. These standards are met.

Section 73D. 070 - Location, Design and Access Standards.
The following location, design, and access standards are applicable to all storage areas:
(1) Location Standards.
(a) The storage area for source separated recyclables may be collocated with the storage area for mixed solid waste.
(b) Storage area space requirements can be satisfied with a single location or multiple locations, and can combine both interior and exterior locations.
(c) Exterior storage areas must:
(i) Be located in central and visible locations on the site to enhance security for users;
(ii) Be located in a parking area; and
(iii) Not be located within a required front yard setback or in a yard adjacent to a public or private street.
(2) Design Standards.
(a) The dimensions of the storage area must accommodate containers consistent with current methods of local collection at time of construction or alteration.
(b) Indoor and outdoor storage areas must comply with Oregon Building and Fire Code requirements.
(c) Exterior storage areas must be enclosed by a sight obscuring fence or wall at least 6 feet in height.
(d) Evergreen plants must be placed around the enclosure walls, excluding the gate or entrance openings for common wall, commercial, and institutional developments.
(e) Gate openings for haulers must be a minimum of 10 feet wide and must be capable of being secured in a closed and open position.
(f) Horizontal clearance must be a minimum of 10 feet and a vertical clearance of 8 feet is required if the storage area is covered.
(g) A separate pedestrian access must also be provided in common wall, commercial, and institutional developments.
(h) Exterior storage areas must have either a concrete or asphalt floor surface.
(i) Storage areas and containers must be clearly labeled to indicate the type of material accepted.

## Finding:

The waste area is central and visible on the site, accessible off of the parking area and outside of any setbacks. A pedestrian access is provided on the south of the enclosure, connecting to the interior waste management room. With recommended Condition of Approval A5, clarifying the selection of tree species for screening, these standards are met.
(3) Access Standards.
(a) Storage areas must be accessible to users at convenient times of the day, and to hauler personnel on the day and approximate time they are scheduled to provide hauler service.
(b) Storage areas must be designed to be easily accessible to hauler trucks and equipment, considering paving, grade, gate clearance and vehicle access.
(c) Storage areas must be accessible to hauler trucks without requiring backing out of a driveway onto a public street. If only a single access point is available to the storage area, adequate turning radius must be provided to allow hauler trucks to safely exit the site in a forward motion.
(d) Storage areas must located so that pedestrian and vehicular traffic movement are not obstructed on site or on public streets adjacent to the site.
(e) The following is an exception to the access standard:
(i) Access may be limited for security reasons.

## Finding:

Access is limited for security reasons. Within Exhibit B, the applicant has provided confirmation from Republic Services that the design plans and location of the waste area will meet their service needs. These standards are met.

## Chapter 73F: Wireless Communications Facilities

Section 73F.020-Maximum Height. The maximum height for a wireless communication facilities, support structures, and antennas is as follows:

| PLANNING DISTRICT | MAXIMUM STRUCTURE HEIGHT |
| :--- | :--- |
| [...] |  |
| (18) Manufacturing Business Park (MBP) | - 65 feet <br> - 85 feet if all yards adjacent to the structure <br> are not less than a distance equal to one and <br> one-half times the height of the structure |
| -28 feet if a property line, street, or alley <br> separates MBP land from land in a <br> residential district |  |

## Finding:

The proposed WCF height is 140 feet, as approved by Variance (VAR 19-0001). With approval of VAR 190001, this standard is met.

Section 73F. 030 - Site Design Standards.
(1) All Wireless Communication Facilities must comply with the following minimum design standards:
(a) A wireless communication facility attached must not be attached to buildings which are designed solely for single family residential use;

## Finding:

The WCF is proposed to be constructed on a support tower. This standard is met.
(b) Mechanical and electrical equipment and the bottom six feet of the support structure for a wireless communication facility must be screened from the public right-of-way and abutting property
by the use of a minimum six foot tall security fence or wall consisting of chain link fencing with vinyl slats, solid wood fencing, concrete masonry unit block, or brick;
(c) Equipment shelters, buildings or cabinets to house radio electronics equipment must be concealed, camouflaged, screened by vegetative, or placed underground.

## Finding:

The base of the tower is proposed to be screened with a 10-foot opaque fence or wall. A stand of mature trees will further screen and obscure the tower base. This standard is met.
(d) A wireless communication facility must utilize existing site conditions such as surrounding vegetation and trees;

## Finding:

The proposed location would find the proposed tower nestled in a relative clearing among mature trees, primarily Douglas fir, making use of the only area on the site that is forested for screening. The proposed location also takes advantage of the site's natural topography to achieve needed height. This standard is met.
(e) A wireless communication facility support structure must be constructed to the minimum height necessary to serve the operational requirements of the facility;

## Finding:

The applicant has submitted a Radio Frequency Report demonstrating that the proposed height is the minimum viable height for their line-of-sight communications needs, since the tower must essentially have an unobstructed line past tree growth and neighboring hills to communicate with other regional towers. This standard is met.
(f) A wireless communication facility must be designed to allow co-location of facilities;
(g) Wireless communication support structure towers must be used in all zones, except when colocating on an existing structure.

## Finding:

A tower is proposed as the support structure. Due to the role of the WCF in a security facility, future colocation with private companies would not be feasible. These standards are met.
(h) Antennas and platforms must be designed to minimize their size and appearance to surrounding development;

## Finding:

Placing the tower within a grove of mature trees, with additional landscaping proposed, significantly minimizes the visual impact of the platform and immediate views of the antenna. The location selection within a 43-acre site also works to minimize off-site visual impacts since this places a significant distance between the tower and potential onlookers. Lastly, the tower is to be a lattice-style structure, which is visually light. This standard is met.
(i) Obsolete or unused wireless communication support structures and associated equipment and antennas must be removed within 12 months of cessation of operations at a site;

## Finding:

With recommended Condition of Approval A16, this standard is met.
(j) No new wireless communication support structure is permitted unless the applicant submits a colocation report showing whether or not any existing tower or support structure within one-half mile of the proposed site can accommodate the applicant's proposed antennae. The report must address the following:
(i) Do existing towers or support structures, or approved but not yet constructed towers or support structures, located within the geographic area meet the applicant engineering requirements;
(ii) Are existing towers or support structures of sufficient height to meet the applicant's engineering requirements;
(iii) Do existing towers or support structures have sufficient structural strength to support the applicants proposed antennae and related equipment;
(iv) Would the applicant's proposed antennae cause electromagnetic interference with the antennae on the existing tower or support structure, or would existing antennae cause interference with the applicant's proposed antennae; and
(v) Are there other limiting factors that render existing towers and support structures unsuitable or unavailable.

## Finding:

The applicant has submitted a report illustrating the need for this tower within Exhibit B. The proposed WCF is dedicated to the PGE use for system security. This is one way for the WCF to comply with federal security requirements for protection of critical infrastructure. Co-location is not an option for security reasons. Secondly, the functionality of the proposed tower cannot be replicated on other towers, which are typically not tall enough to create a direct line-of-sight needed for this WCF's purpose. This is explained in more detail in the Radio Frequency Report. The WCF operates on a designated band and would not interfere with other communications. These standards are met.
(k) The minimum distance between wireless communication support structure tower is 1,500 feet. Separation must be measured by following a straight line from one wireless communication support structure tower to the next. For purposes of this section, a wireless communication support structure tower includes wireless communication support structure tower for which the City has issued a development permit, or for which an application has been filed and not denied.

## Finding:

Tualatin's nearest existing or permitted tower is 2,750 feet from the proposed site. This standard is met.
[...]

Section 73F. 040 - Setback Requirements. Setbacks for all Wireless Communication Facilities are determined through the Architectural Review process, and must be consistent with the following:
(1) The minimum setback must be 5 feet, except as otherwise specified in (2), below; Finding:
In this case, the setback (a minimum of 50 feet) for the WCF was previously determined by approval of a Conditional Use for the facility (CUP 19-0002). The minimum distance proposed for the WCF is more than 250 feet from the nearest property line. This standard is met.

## III. CONCLUSION AND RECOMMENDATION

Based on the application materials and above listed findings demonstrating compliance with the applicable criteria, staff respectfully recommends approval of the subject Architectural Review application (AR 19-0005), subject to the following recommended conditions of approval:

## GENERAL:

A1. This Architectural Review approval shall expire after two years unless a building, or grading permit submitted in conjunction with a building permit application, has been issued and substantial construction pursuant thereto has taken place and an inspection performed by a member of the Building Division, or an extension is granted under the terms of Section 33.020(10).

A2. The applicant must comply with the associated Public Facilities Decision (AR 19-0005) from the City of Tualatin Engineering Division, pursuant to TDC 33.020(6)(a)(ii).

## PRIOR TO BUILDING OR ENGINEERING PERMIT ISSUANCE:

A3. The applicant must revise grading plans to indicate that a certified arborist is required be on site to supervise work where fencing is to be temporarily moved for access and construction activities, pursuant to TDC 73B.070(3). The applicant must install the tree protection fencing consistent with Section 73B.070(3). Please contact the Planning Division and provide at least 48 hours' notice.

## PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY:

A4. The applicant must construct proposed buildings and all site improvements as illustrated on approved plans and reflected in the conditions of approval. A site inspection by the Planning Division staff is required to verify satisfaction of all requirements. Please contact the Planning Division and provide at least 48 hours' notice. This inspection is separate from inspection(s) done by the Building Division.

A5. The applicant must submit a detailed landscaping schedule demonstrating that the following sections of the TDC are met: 73B.080; 73C.220(2), 73C.220(3)(a), 73C.220(4); and 73D.070.

A6. The applicant must provide covered or interior bike parking for 22 bikes meeting the dimensional standards of TDC 73C.050, in accordance with TDC 73C.100.

A7. Areas impacted by grading and structure demolition must be revegetated pursuant to TDC 73B.040(1).

A8. The applicant must install an identification system which clearly locates buildings and their entries for patrons and emergency services.

A9. The applicant must install bicycle parking signage and vanpool/carpool parking signage per MUTCD standards, pursuant to TDC 73C.010(2)(xi) and TDC 73C.050(2)(d).

## THE FOLLOWING CODE REQUIREMENTS APPLY TO THE SITE IN AN ON-GOING MANNER:

A10. All mechanical equipment must be screened in accordance with TDC 73A.300(5). Prior to approval of a mechanical permit, the applicant or property owner must submit scaled elevations that illustrate screening by a parapet or other method.

A11. All sign permits require separate sign permit approval per TDC Chapter 38. Architectural Review approval does not constitute sign permit approval.

A12. All site, building exterior, and landscaping improvements approved through the AR process must be continually maintained, so as to remain substantially similar to original approval through the AR process, except as permitted under TDC 33.020(7) (Modifications to Previously Approved Final Architectural Review Decisions).

A13. All parking spaces shall be continuously maintained in compliance with the dimensional standards specified in TDC Figure 73-1.

A14. Site landscaping and street trees shall be maintained to meet the vision clearance requirements of TDC Figure 75-1.

A15. The proposed development must comply with the noise standards of TDC 63.051.
A16. If operations cease on the property, the owner must remove the unused wireless communication support structures and associated equipment and antennas within 12 months of cessation, in accordance with TDC 73F.030(1)(i).

## Portland General Electric INTEGRATED OPERATIONS CENTER

## Introduction to Consolidated Conditional Use, Variance, and Architectural Review Application



April 18th, 2019

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## Terms and Acronyms Used

The following terms and acronyms are used throughout this narrative - in the Introduction, Section 1: Conditional Use and Variance Review, and Section 2: Architectural Review.

| AR | Architectural Review |
| :--- | :--- |
| ARB | Architectural Review Board |
| CU | Conditional Use for the WCF |
| CWS | Clean Water Services |
| Emergency Helipad | Emergency Helicopter Landing Facility |


| FERC | Federal Energy Regulatory Commission |
| :--- | :--- |
| IOC or "the center" | Integrated Operations Center (PGE Regional Operations |
|  | Headquarters) |
| MBP | Manufactured Business Park zone |
| PGE | Portland General Electric Company |
| ROW | Right-of-way |
| sf | Square foot |
| TDC | Tualatin Development Code |
| TSP | Tualatin Transportation System Plan (2013) |
| VAR | Variance from height and setback standards for the WCF |
| WCF or "the tower" | Wireless Communications Facility |

## Drawings

Cover Sheet, Index
Civil Drawings
Landscape and Site Plan Drawings
Architectural Drawings
Electrical Drawings

AR-G001, AR-G100, AR-G110
AR-C100 to AR-C801
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AR-A101 to AR-A303
AR-E002 to AR-E020G

For full drawing list, see index on Sheet AR-G001

## Appendices

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B. Service Provider Letters
C. Transportation Impact Study
D. Radio Frequency Report
E. Arborist Report
F. Public Facilities Narrative
G. Lighting Cut Sheets
H. Wetland Delineation and Flood Plain
I. Stormwater Management Report
J. Topographic Survey

## General Information

| Owner: | Portland General Electric Company <br> 121 SW Salmon St. <br> Portland, Oregon 97204 <br> (Contact: Mark Lindley, Property Services Manager, <br> 503-464-8102) |
| :--- | :--- |
| Representative: | Winterbrook Planning <br> 610 SW Alder Street, Suite 810 <br> Portland, Oregon 97205 <br> (Contact: Ben Schonberger, Senior Planner, 503-827-4422) |
| Location: | 12150 SW Tualatin-Sherwood Road |
| State ID No.: | 2S1 27C 0701, 2S1 27C 0500 |
| Zoning: | Manufacturing Business Park (MBP) <br> Conditional Use (CU), Variances (VAR) and Architectural <br> Review (AR) |
| Procedure: | Type III Review before the Planning Commission <br> (CU/VAR) and the Architectural Review Board (AR) |
| Pre-Application Mtg: | February 13, 2019 |
| Proposal: | Integrated Operations Center (IOC) headquarters for <br> Portland General Electric Company. Includes accessory <br> wireless communications facility (WCF), outdoor <br> mechanical and electrical equipment yard, emergency <br> helipad, vehicle parking and circulation, landscaping, <br> stormwater management, security fencing and related <br> improvements. |

## SECTION 1: PROJECT NARRATIVE

## Project Summary

Portland General Electric provides regional transmission and distribution services to over 40 percent of Oregon's population, mostly in the Portland metro, Salem, and neighboring counties. PGE proposes to consolidate its regional operations management and technical services on the subject 43-acre site in Tualatin.

The proposed Integrated Operations Center functions as PGE's regional operations headquarters and is designed to achieve two key objectives: first, to minimize power supply disruptions and second, to continue to decarbonize the grid system. PGE management and technical staff based at the center will manage and monitor energy supply, transmission network, distribution network and physical and cyber security operations, while providing computer hardware and software support and operational analysis services. The center will also serve as the emergency operations headquarters for PGE as the need arises.

The center will co-locate technical staff conducting 24/7 functions relating to grid and power supply operations as well as physical and cyber security. The IOC will also contain PGE's emergency operations center, which is activated when storms or other large-scale event disrupts normal electrical operations.

The IOC will employ approximately 300 management and technical staff in a building of 108,000 square feet. The center also includes a stand-alone wireless communications facility (WCF) that is required for operational needs. The IOC will be located on a 43acre site on the west edge of Tualatin with frontage on SW 124 ${ }^{\text {th }}$ Avenue. Secured primary access is from a newly-constructed segment of SW Blake Street, which will be extended into the site from SW $124^{\text {th }}$ Avenue. A secured secondary access will be provided from SW $120^{\text {th }}$ Avenue to the east.

## Organization of this Application

The IOC includes the corporate office / operations building and accessory uses, including the WCF (the tower), parking and circulation, outdoor mechanical and electrical equipment, security fencing, landscaping, and an emergency helipad. The consolidated land use application has four land use reviews:

1. Architectural review (AR) for the entire IOC (including the WCF),
2. Conditional use review for WCF,
3. Height variance for the WCF and
4. Setback variance for the security fence southwest of the tower, near the Blake Street extension.

The Architectural Review Board (ARB) will review the AR application. The Planning Commission will review the conditional use permit (CU) and both variances (VAR). Both applications are reviewed under Type III procedure. This requires a public hearing before the Planning Commission for the CU/VAR review, and separately, a public hearing before the ARB for the AR review.

This consolidated application is divided into three sections.

1. The Introduction includes background information and findings that apply to both the AR and the CU/VAR applications. The Introduction includes an overview of the consolidated application, identifies IOC design principles, describes the proposed program for development and site plan. This section also contains findings to demonstrate compliance with base zone use and development standards, since they apply to all development on the site.
2. Section 1 addresses conditional use and variance criteria related to the WCF. Wireless communications facilities are a conditional use in the MBP zone. Conditional uses and variances are reviewed separately by the Tualatin Planning Commission. Two variances are requested.

- Tower height: The height variance is necessary to allow the proposed IOC WCF to securely communicate with other PGE towers. As documented in the Radio Frequency Report (Appendix D), the proposed WCF must be a minimum of 140 feet high, taller than allowed in the MBP zone.
- Fence setback: A second variance is necessary to allow a security fence within 50 feet of the SW Blake Street and SW 124 ${ }^{\text {th }}$ Avenue rights-of-way (ROW). The perimeter security fence is proposed at 20 feet from SW Blake Street and SW 124 ${ }^{\text {th }}$ Avenue at its closest point. The purpose of the setback variance is to preserve existing trees and better screen the tower from public view.

3. Section 2 focuses on the AR application and demonstrates compliance with the TDC Chapters 73A through 73F - including site development and design standards related to the IOC. It also addresses the design components of the tower. This application will be reviewed by the ARB.

As discussed with city staff and as supported by TDC 32.020, the Planning Commission public hearing and CU/VAR decision will precede the ARB public hearing and AR decision.

## Existing Site Conditions

The existing site is currently undeveloped and sits at the juncture of SW TualatinSherwood Road and SW $124^{\text {th }}$ Avenue on the western edge of Tualatin. The 43-acre site was annexed into the city on January 28, 2019 (ANN 18-0002). As shown on Figure 1, the rectangular "notch" property at the north edge of the site is not owned by PGE and is not part of this application.


Figure 1. Map of site from city annexation application

Figure 2 is an aerial photograph of the subject property.


Figure 2. Oblique view of site, looking northwest.

Key elements of the site are as follows.

- The site slopes up from SW Tualatin-Sherwood Road, rising 75 feet in elevation from the roadway to a wooded knoll in the southwest corner of the site.
- The northern portion of the site is cleared of trees and has been used for farming activities. A cluster of six farm buildings, including a dwelling, garages, and sheds, is located at the north edge of the subject site, closest to SW Tualatin-Sherwood Road.
- The southwestern quarter of the site has a stand of mature trees that is most dense near SW 124 ${ }^{\text {th }}$ Avenue.
- Two small wetlands on the property are located at the southeast corner and east-central side of the site; these wetlands have been delineated and mapped (see Wetland Delineation and Flood Plain, Appendix H).

Most site development is proposed in the central, cleared portion of the site. The WCF is located within the grove of trees on the west side. Proposed development avoids both wetlands.

## Surrounding Land Uses

Industrial uses surround most of the site.

- Land to the south and east shares the same Manufacturing Business Park (MBP) zoning as the subject site, as does the "notch" property that fronts SW Tualatin-Sherwood Road.
- Tigard Sand and Gravel occupies land east and south of the site. Much of this land is an active gravel quarry.
- North of the site, opposite SW Tualatin-Sherwood Road, land is zoned General Manufacturing (MG). A heavy-duty truck parts supplier and a packaging supply business occupy this land.
- The land west of the site, across SW $124^{\text {th }}$ Avenue, is outside city limits in unincorporated Washington County. This land is undeveloped. The Tualatin Water District proposes a water treatment facility on this property.


Figure 3. Aerial photo of site with zoning

The nearest residentially-zoned property is located about three-quarters of a mile (3,700 feet) southeast of the subject site. Land between the PGE site and these residences is occupied by other industrial properties and activities, including the gravel quarry, a railroad corridor, and a dense grove of trees.

## Design Principles

The IOC is designed as a secure and reliable facility enabling current operations and the deployment of emerging grid technologies in a collaborative and flexible work environment.

Eight design principles drive the center's design. Site planning and design choices flow from these principles, especially security imperatives. Thus, the IOC has been designed:

1. As a secure 24 -hour facility that deters and protects against existing and emergent physical and cyber threats, meets current and future regulatory requirements, and protects staff and critical assets.
2. For resiliency and immediate occupancy and functionality during and after natural disasters such as a major earthquake.
3. For flexibility, growth and future reconfigurations that allow adaptive responses to changes in technology and the electrical power marketplace.
4. To incorporate technologies and capabilities that allow PGE to operate a smarter evolving grid for the benefit of its customers.
5. To allow for the inclusion of all necessary operational functions into a fully integrated operations center that facilitates enhanced communications and knowledge sharing across multiple work groups.
6. As a modern collaborative workplace that fosters a work atmosphere that encourages employees to work at higher performance levels.
7. As an attractive, flexible, and desirable workplace that will assist PGE with attracting and retaining a highly skilled and talented workforce.
8. To bring tangible value and benefit to PGE, its employees, customers and regulators.

## Security

IOC security needs are a major driver to structure and site design. The IOC is defined as "critical infrastructure" by the Federal Energy Regulatory Commission (FERC). The center has been designed to meet mandatory Critical Infrastructure Protection (CIP-014) reliability standards. (Order No. 802, Physical Security Reliability Standard, 149 FERC 61, 140 [2014]) The purpose of CIP-014 is:
"To identify and protect Transmission stations and Transmission substations, and their associated primary control centers, that if rendered inoperable or
damaged as a result of a physical attack could result in widespread instability, uncontrolled separation, or Cascading within an Interconnection." (CIP-01401.A.3)

As a transmission facility owner, PGE is required to follow physical and programmatic requirements outlined in the CIP-014 that dictate enhanced security provisions for transmission stations. The need for enhanced security explains why the IOC building is in the middle of the site. Separating critical electrical grid infrastructure from surrounding public ROWs by large setbacks, vegetation, and perimeter fencing protect the IOC from outside access. At the same time, the IOC building and accessory structures are designed to blend into the existing landscape, minimize street presence and reduce the profile of the development.

## Site Plan and Design

The proposed site plan shows the location and orientation of buildings and infrastructure on the site. The main IOC building and parking area are in the northcentral portion of the site. The SW Blake Street extension provides site access; a private driveway leads to a guarded gate before entering the parking area.

The WCF is proposed in an existing clearing surrounded by trees southwest of the main building and north of the SW Blake Street extension. Stormwater detention ponds are located at the far northeast and northwest corners of the site.


Figure 4. Site plan


Figure 5. Security fence example

A perimeter security fence completely encircles all project development, except for the approach driveway and stormwater detention ponds in the northeast and northwest corners of the site. The perimeter fence will be constructed of 8 -foot metal pickets and includes security cameras and lighting inside the fence perimeter to deter unauthorized access. To gain access to the developed area of the property, employees and visitors must stop at a gated guard booth.

Where the property abuts SW TualatinSherwood Road and most of SW $124^{\text {th }}$ Avenue, the fence will be set back 50 feet from the property line, to comply with fence setback standards. Along SW Blake Street and some of SW $124^{\text {th }}$ Avenue, a variance is requested to move the fence within 20 feet of the street lot line. The variance will allow more trees to be preserved and better screening for the proposed WCF.

A secondary access point, through a locked gate at the northeast corner of the secured perimeter area, is for emergency and service uses only. An emergency helicopter landing pad will be located at the juncture of two service/maintenance driveways leading to this secondary access and around the north side of the operations center building. The paved landing pad can also serve as an emergency vehicle turnaround. The circular, paved emergency helipad will be 100 feet in diameter, with in-ground lighting. This helipad will be available for use by PGE only in emergency situations such as major earthquakes, floods, wildfires or ice storms.

As shown on the following page, the proposed two-story, 108,000 square foot IOC building is L-shaped. The main building entry for all employees is on the south side of the new structure. Outdoor space for building users is in the "elbow" of the new structure. The building and its critical infrastructure and grid network technologies are, by design, deep within the site.


Figure 6. Axonometric elevation of IOC building

A proposed WCF will be part of PGE's regional microwave radio network that is critical to system monitoring and emergency response functions of the IOC. The tower will be a four-legged, self-supporting, lattice-style metal structure with attached microwave dish antennae.


Figure 7. Example WCF tower

The tower must be 140 feet tall to communicate with PGE's existing network of WCFs. A small utility shack will be located at the base of the tower. The WCF will be obscured by a grove of trees and enclosed within a security fence.

The landscape design connects the buildings and program together into a broader site improvement vision. Principles guiding the design are sustainability, simplicity, and durability. The landscape results in improved ecological functions including natural hydrology and wildlife values. Planting, grading and drainage approaches are integrated to allow stormwater management to be accommodated on site.

The design preserves many of the existing natural features of the site, including the forested area and drainage gully to the west and south of the proposed buildings. Where possible, existing trees are protected, and native trees will be planted as appropriate. Invasive or undesirable existing plantings will be removed to minimize future maintenance. Plant material that responds to native Oregon plant communities will be selected, focused on drought tolerance, durability, maintenance, and visual cohesion with the building design. The quantity, sizes, and species of plantings meets the Tualatin's requirements for landscape coverage, heritage tree replacement, and
parking lot shading. Landscaping screens the facility from the public ROW as much as possible.

Two areas are not proposed for development in this application and are reserved for future PGE use. They are:

- north of the fence along SW Tualatin-Sherwood Road (with the exception of stormwater detention ponds), and
- south of the driveway and SW Blake Street extension.

As noted above, the decision to set the IOC development back from SW TualatinSherwood Road is to reduce the public profile of the facility and is largely based on security considerations.

## Site Uses

The following is an overview of the uses and activities that will occur on the site.

## IOC Office and Operations Building

The IOC building is the primary use of the site. The proposed use will be a regional office headquarters for PGE operations staff. Management and technical staff based at the center will manage and monitor regional energy supply, transmission and distribution network, and physical and cyber security operations, while providing computer hardware and software support and operational analysis services. The center will also serve as the emergency operations headquarters for PGE as the need arises.

The breakdown of activities within the building and their sizes are as follows:

| Use | Building Area <br> (square feet) |
| :--- | :--- |
| Offices | 33,800 |
| Computer Support | 35,750 |
| Operations Analysis | 11,600 |
| Meeting Rooms | 15,250 |
| Data Center | 8,100 |
| Dining Area | 2,000 |
| Fitness Area | 1,500 |

A mechanical yard adjacent to the north side of the building will have mechanical, electrical, plumbing, and fire suppression equipment, including generators and fuel and water tanks. This area will be screened by vegetation and a separate security fence. Likewise, an outdoor area for employees is located in the "elbow" of the new building, and will be landscaped and limited by fencing.

## Wireless Communications Facility (WCF)

Constant monitoring of the regional electrical grid requires that the site have a $24 / 7$ control and data center with uninterrupted communications capabilities. As part of this, the IOC and its wireless communication facility will become part of the existing, private, microwave radio network PGE operates throughout the region. The tower is located inside the perimeter security fence to maintain a high level of security.

The proposed WCF is accessory to the primary IOC (regional office headquarters) use and is separate from the main building and parking area. Per code definitions, the proposed tower is a "wireless communications facility" that is not attached to a building (TDC 39.650 and TDC 31.060).

## Emergency Helipad

The helipad is an emergency helicopter landing facility that will be used only in the event of a natural disaster or weather emergency, such as an earthquake, flood, wildfire fire or ice storm - and only by PGE staff or their authorized agents. No permanent storage for helicopters, fueling infrastructure, or other maintenance equipment will be located at the site. The 100 -foot diameter pad will also be used as an emergency vehicle turnaround. Under routine conditions, the paved area will be used as the intersection of internal service driveways near the building.

The emergency helipad is permitted as an accessory use ${ }^{1}$ per TDC 39.100 (3)(c), which allows accessory uses in conjunction with the primary use. Accessory uses are defined as, "uses or activities that are subordinate and incidental to a primary use on a site." The primary use is the IOC building. The emergency helipad is subordinate to the IOC building because it:

1. would not have been proposed as a stand-alone facility if there were no IOC building on the site;
2. is exclusively for use by PGE and then only in emergency situations; and
3. is separate from, and much smaller than, the IOC building.
[^0]
## Other Accessory Uses

Other accessory uses on the site, like the helipad, directly relate to the integrated operations center use and are subordinate and incidental to the primary use. These accessory uses include parking, landscaping, the outdoor utility area, a guard booth at the site entrance, perimeter fencing, internal pedestrian pathways and service driveways, and stormwater management infrastructure. These accessory uses are common in campus-style developments and are clearly subordinate and incidental to the primary office / operations center use. None of these accessory uses would be necessary or even possible without the existence of the IOC office headquarters use.

## Base Zone Standards

The following section addresses use and development standards in the base Manufacturing Business Park (MBP) zone. These standards apply to all development on the site, including the new operations center building and the WCF. Quotes from the TDC are shown in italics.

## Chapter 64: Manufacturing Business Park Zone (MBP)

## Section 64.200 - Use Categories.

(1) Use Categories. Table 64-1 lists use categories Permitted Outright ( $P$ ) or Conditionally Permitted (C) in the MBP zone. Use categories may also be designated as Limited (L) and subject to the limitations listed in Table 64-1 and restrictions identified in TDC 64.210. Limitations may restrict the specific type of use, location, size, or other characteristics of the use category. Use categories which are not listed are prohibited within the zone, except for uses which are found by the City Manager or appointee to be of a similar character and to meet the purpose of this zone, as provided in TDC 31.070.
(2) Overlay Zones. Additional uses may be allowed in a particular overlay zone. See the overlay zone Chapters for additional uses.[...]

## Section 64.210 - Additional Limitations on Uses. [...]

(3) Offices. Office uses are a permitted or conditional use as follows:
(a) Permitted Uses.
(i) Research and Development Offices. Research and development offices and laboratories for chemical, engineering, and physical sciences; medical and pharmaceutical products; alternative energy production from sources such as solar and wind; industrial products and consumer products.
(ii) Headquarters Offices. Corporate, regional, or district office headquarters are permitted outright if the headquarters is for any use permitted in this Code, the offices occupy at least 20,000 square feet, and no manufacturing is conducted that is otherwise not a permitted use in the MBP zone.[...]

Finding: The proposed IOC use is a regional office headquarters for PGE operations staff. This use is a permitted use in the zone per Section 64.210(3)(ii).
(The detached WCF is an integral, accessory part of the IOC and is listed in Table 64-1 as a conditional use. Conditional use findings for the WCF are found in a separate section of this consolidated application.)

The IOC building is the primary use of the site. The proposed use will be a regional office headquarters for PGE operations staff. Management and technical staff based at
the center will manage and monitor regional energy supply, transmission and distribution network, and physical and cyber security operations, while providing computer hardware and software support and operational analysis services. The center will also serve as the emergency operations headquarters for PGE as the need arises.

The proposed regional headquarters will employ approximately 300 management and technical staff in a building of 108,000 square feet. Office uses occupy more than 20,000 square feet of the structure, and no manufacturing activities are proposed.
(5) Outdoor Uses. All uses must be conducted wholly within a completely enclosed building, except off-street parking and loading, Basic Utilities, Wireless Communication Facilities, outdoor storage of materials and products directly related to the permitted use and outdoor play areas of child day care centers as required by state day care certification standards.

Finding: As shown on the site plan, IOC office and operations uses occur within the enclosed building. The WCF, parking and circulation (including the emergency vehicle turnaround / helipad), and outdoor utility yard north of the main building are all permitted outdoor uses. These uses are also shown on the site plan.

A fenced mechanical yard adjacent to the north side of the building will have mechanical, electrical, plumbing, and fire suppression equipment, including generators and fuel and water tanks. These materials are "directly related to the permitted use." This area will be screened by vegetation and a separate security fence.

The proposed WCF is an accessory use that is critical to the monitoring and emergency response functions of the IOC. It is expressly listed above as an allowed outdoor use.

The helipad is an emergency helicopter landing facility that will be used only in the event of a natural disaster or weather emergency, such as an earthquake, flood, wildfire fire or ice storm - and only by PGE staff or their authorized agents. The 100-foot diameter paved area can also be used as an emergency vehicle turnaround. Under routine conditions, the paved area will be used as the intersection of internal service driveways. As described in more detail above, the helipad is subordinate and incidental to the primary use and therefore allowed as an accessory use.

Other uses on the site - parking, landscaping, a guard booth, perimeter fencing, internal pedestrian pathways and service driveways, and stormwater management infrastructure - are also accessory. That is, they directly relate to the primary integrated operations center use but are subordinate and incidental to it. None of these accessory outdoor uses would occur without the existence of the IOC office headquarters use.

## Section 64.300 - Development Standards.

Development standards in the MBP zone are listed in Table 64-2. Additional standards may apply to some uses and situations, see TDC 64.310.

Finding: MPB zone development standards apply to primary, conditional, and accessory uses. All development standards are either met or a variance to the standard has been requested in Section 1 of this consolidated application. Two variances are proposed: (1) a height variance for the WCF and (2) a fence setback variance that will allow for greater preservation of existing trees and increased tower security.

Development standards for the site are found primarily in the base zone, Table 64-2. This section applies to all development in the zone, including the IOC, the tower, and all the accessory development on the site. Development standards that clearly are not applicable - such as standards for land within the RSIA boundary, land divisions and private streets - are not further addressed in this application.

Table 64-2 Development Standards in the MBP Zone

| STANDARD | REQUIREMENT | LIMITATIONS AND CODE REFERENCES | HOW STANDARD IS MET BY THIS DEVELOPMENT |
| :---: | :---: | :---: | :---: |
| LOT DIMENSIONS |  |  |  |
| Minimum Lot Width | 100 feet | When lot has frontage on public street, minimum lot width at the street is 100 feet. <br> When lot has frontage on cul-de-sac street, minimum lot width at the street is 50 feet. | The tax lots have frontage along three different public streets - all of which exceed the 100 -foot minimum standard. <br> Tax lot 2S127C 701: 216 ft . frontage along SW Tualatin-Sherwood Road; 945 feet of frontage along SW 124 ${ }^{\text {th }}$ Avenue. <br> Tax lot 2S127C 500: 716 ft . of frontage along SW TualatinSherwood Road; 418 ft . of frontage along SW 120 ${ }^{\text {th }}$ Avenue. |
| MINIMUM SETBACKS |  |  |  |
| Front | 30-50 feet |  | Blake and $124^{\text {th }}$ are "front" lot lines Closest non-fence structure is WCF tower, set back roughly 160 feet from Blake, and roughly 260 feet from |


| STANDARD | REQUIREMENT | LIMITATIONS AND CODE <br> REFERENCES | HOW STANDARD IS MET BY THIS <br> DEVELOPMENT |
| :--- | :--- | :--- | :--- |
|  |  |  | $124^{\text {th }}$. <br> Variance requested for security |
| fence setback. |  |  |  |


| STANDARD | REQUIREMENT | LIMITATIONS AND CODE REFERENCES | HOW STANDARD IS MET BY THIS DEVELOPMENT |
| :---: | :---: | :---: | :---: |
|  |  |  | from SW Blake Street. <br> Therefore, a fence setback variance is requested. |
| STRUCTURE HEIGHT |  |  |  |
| Maximum Height | 65 feet | May be increased to 85 feet if yards adjacent to structure are not less than a distance equal to one and one-half times the height of the structure. <br> Flagpoles may extend to 100 feet. | The IOC building is two-stories and well below the 65 ' height maximum. <br> However, the proposed WCF will be 140 feet tall. <br> Therefore, a height variance is requested for the WCF. |
| Maximum Height <br> Adjacent to <br> Residential District | 28 feet | Measured at the 50 -foot setback line, includes flagpoles. The building height may extend above 28 feet on a plane beginning at the 50 -foot setback line at a slope of 45 degrees extending away from the 50 -foot setback line. | Not applicable. The site is not adjacent to any residential district. <br> The nearest residentially zoned area is approximately three-quarters of a mile from the subject property. |

## Section 64.310 - Additional Development Standards.

(1) Industrial Master Plan. Minimum lot size, setbacks, maximum height, and other development standards may be modified by submittal of an Industrial Master Plan application. See TDC 33.050.
(2) Spur Rail Tracks. Spur rail tracks are not permitted within 200 feet of an adjacent residential district.
(3) Minimum Lot Size in RSIA.

Finding: The above provisions are not applicable. This proposal does not include an Industrial Master Plan. However, height and setback variances are addressed in Section 1 of this narrative. No spur rail tracks are proposed. Map 9-5 shows that the site is not within the Metro RSIA.
(4) Sound Barrier Construction. Sound barrier construction is required to mitigate the impact of noise associated with overhead doors and building mechanical equipment, including but not limited to heating, cooling and ventilation equipment, compressors, waste evacuation systems, electrical transformers, and other motorized or powered machinery located on the exterior of a building. Sound barrier construction must conform to the following standards:[...]

Finding: Subsection (b) of this code section indicates that sound barriers are required to intercept "paths of 450 feet or less between a residential property in a residential planning district and" the noise-emitting object. The "nearest residential property in a residential planning district" to the subject property is 3,700 feet away to the southeast. Consequently, no sound barriers are required.
(5) Wetland Conservation Lots. No minimum lot size, width or frontage requirement must apply to wetland conservation lots.

Finding: The site is not a Wetland Conservation Lot. This standard does not apply.
(6) Setbacks for Conditional Uses. Setback requirements for conditional uses must be as determined and approved through the Conditional Use Permit process in accordance with TDC Chapter 33 and the Architectural Review process in accordance with TDC Chapter 33 and TDC Chapter 73A through 73F. However, no setback greater than 50 feet may be required.

Finding: The proposed regional operations headquarters is a permitted use, not a conditional use. The setback requirements for conditional uses do not apply. However, the above requirements are applicable to the detached wireless communication facility, which is a conditional use in the MBP zoning district. Setback requirements are addressed in Section 1 (CU/VAR) and Section $2(\mathrm{AR})$ of this narrative.
(7) Setback Reduction for Developments Adjacent to Greenways and Natural Areas. To preserve natural areas and habitat for fish and wildlife, the decision-authority may provide a front, side, or rear yard setback reduction for developments that are adjacent to Greenways or Natural Areas that dedicate land for conservation or public recreational purposes, in accordance with the following standards.

Finding: The property is not adjacent to any greenways or natural areas.

## Additional Narrative and Findings

This document and prior sections are applicable to all development on the site. Findings for the conditional use (i.e., the WCF), the tower height and fence setback variances, and the architectural review are located in separate sections since they are separate land use reviews and will be reviewed by different city decision-makers. These documents are Section 1: Conditional Use and Variance, and Section 2: Architectural Review.

## Portland General Electric INTEGRATED OPERATIONS CENTER

## Section 2: Architectural Review Findings



April 18th, 2019

Winterbrook Planning
Dreyfuss + Blackford Architecture
KPFF Consulting Engineers
Lancaster Enginepring

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## SECTION 2: ARCHITECTURAL REVIEW

PGE's consolidated land use application includes multiple sections, applicable to proposed corporate office / operations building and accessory uses, including the WCF tower, parking and circulation, outdoor mechanical and electrical equipment, security fencing, landscaping, and an emergency helipad. The sections address different city standards - the AR application reviewed by the ARB, and the CU/VAR applications reviewed by the Planning Commission.

- The Introduction includes an overview of the consolidated application, identifies IOC design principles, describes the proposed site plan, and demonstrates compliance with base Manufacturing Business Park (MBP) zone use and development standards.
- Section 1 addresses conditional use and variance criteria related to the WCF. Wireless communications facilities are a conditional use in the MBP zone. Conditional uses and variances are reviewed by the Tualatin Planning Commission.
- Section 2 (this section) focuses on the AR application and demonstrates compliance with the TDC Chapters 73A through 73F - including site development and design standards related to the IOC. It also addresses the design components of the tower.

Quotes from the TDC are presented in italic font followed by findings demonstrating compliance.

## Integrated Operations Center

The IOC will serve as PGE's regional operational and emergency response headquarters. Because the IOC is primarily an office building that is larger than 50,000 square feet, it is a subject to a Type III review by the ARB.

Importantly, the IOC is an atypical commercial use because it is:

1. defined as critical infrastructure,
2. not open to the public,
3. has highly restricted access, and
4. is surrounded by a security fence.

PGE is required to follow physical and programmatic requirements outlined in federal guidelines. These rules dictate enhanced security provisions for critical electrical grid infrastructure. Sites are protected from outside access by large setbacks, vegetation, and perimeter fencing. The IOC building and accessory structures are designed to blend into the existing landscape, minimize street presence and reduce the profile of the development. Because of these limitations and specialized requirements, design standards that normally apply to public-facing retail and office development require some interpretation regarding how they apply to the proposed IOC.

## Chapter 33: Architectural Review Approval Criteria

## Section 33.020 - Architectural Review

(2) Applicability.
(a) The following types of development are subject to Architectural Review:[...]
(i) Any exterior modifications to improved or unimproved real property;
(b) Examples of development subject to Architectural Review, include but are not limited to the following:[...]
(vi) New wireless communication facilities, and new attached wireless communication;[...]
(3) Types of Architectural Review Applications - Procedure Type. [...]
(d) Large Commercial, Industrial, and Multifamily Development. Development applications that propose any of the following are subject to Type III Review by the Architectural Review Board as the hearing body:
(i) New Commercial Buildings 50,000 square feet and larger[...].

Finding: The proposed commercial building is greater than 50,000 square feet and an exterior modification to real property. TDC $33.020(3)(\mathrm{d})(\mathrm{i})$ is applicable, and this project is therefore subject to a Type III Architectural Review. The WCF on site is also subject to AR per TDC 33.020(2)(b)(vi). The ARB will also review the tower design.
(4) Application Materials. The application must be on forms provided by the City. In addition to the application materials required by TDC 32.140 (Application Submittal), the following application materials are also required: (a) The project name and the names, addresses, and telephone numbers of the architect, landscape architect, and engineer on the project;
(b) Existing conditions plan, site plan, grading plan, utility plan, landscape plan, and lighting plan all drawn to scale; (c) A materials board that includes example building materials and textures; (d) Title report; and (e) A Service Provider Letter from Clean Water Services.

Finding: The submitted drawings and appendices to this narrative contain all the required elements listed above.
(5) Approval Criteria... (c) Large Commercial, Industrial, and Multifamily Development. Applications for Large Commercial, Industrial, and Multifamily Development must comply with the applicable standards and objectives in TDC Chapter 73A through 73G.

Finding: The proposed development is a large commercial development and therefore subject to the approval criteria in TDC Chapter 73A through 73G, as described in subsection (5)(c) above. Findings against each of these sections are provided later in this document.
(6) Conditions of Approval. (a) Architectural Review decisions may include conditions of approval that apply restrictions and conditions that: (i) Protect the public from the potentially deleterious effects of the proposal; (ii) Fulfill the need for public facilities and services created by the proposal, or increased or in part attributable to the proposal; and (iii) Further the implementation of the requirements of the Tualatin Development Code. (b) Types of conditions of approval that may be imposed include, but are not limited to: [...]

Finding: The applicant understands that the ARB may apply conditions of approval where necessary to ensure compliance with TDC standards and criteria.
(7) Modifications to Previously Approved Final Architectural Review Decisions. An applicant who wishes to modify a previously approved final Architectural Review decision may utilize one of the following procedures: [...]

Finding: This request is for an architectural review, not a modification to a previous review. This standard does not apply.
(8) Effective Date. The effective date of an Architectural Review decision or Minor Architectural Review decision is the date the notice of decision is mailed.
(9) Permit Expiration. Architectural Review decisions (including Minor Architectural Review decisions) expire two (2) years from the effective date unless the applicant has received a building, or grading permit submitted in conjunction with a building permit application, substantial construction has occurred pursuant to the building permit, and an inspection has been performed by a member of the Building Division.

Finding: PGE plans to begin construction immediately upon approval and issuance of land use and construction permits.

## Chapter 73A - Site Design

## Section 73A. 010 - Site and Building Design Standards Purpose and Objectives.

(1) Purpose. The purpose of the site and building design objectives and standards found in TDC 73A through TDC 73G is to promote functional, safe, innovative, and attractive sites and buildings that are compatible with the surrounding environment, including, but not limited to: (a) The building form, articulation of walls, roof design, materials, and placement of elements such as windows, doors, and identification features; and
(b) The placement, design, and relationship of proposed site elements such as buildings, vehicular parking, circulation areas, bikeways and bike parking, accessways, walkways, buffer areas, and landscaping.
(2) Objectives. The objectives of site and building design standards in TDC 73A through TDC 73G are to:
(a) Enhance Tualatin through the creation of attractively designed development and streetscapes;
(b) Encourage originality, flexibility, and innovation in building design;
(c) Create opportunities for, or areas of, visual and aesthetic interest for occupants and visitors to the site;
(d) Provide a composition of building elements which responds to function, land form, identity and image, accessibility, orientation and climatic factors;
(e) Conserve, protect, and restore fish and wildlife habitat areas, and maintain or create visual and physical corridors to adjacent fish and wildlife habitat areas;
(f) Enhance energy efficiency through the use of landscape and architectural elements; and
(g) Minimize disruption of natural site features such as topography, trees, and water features.

Finding: The purpose and objectives listed above are not in themselves approval criteria. Nevertheless, the proposed development carries out the purpose and objectives of the site and building design by:

- locating the building and associated development in an appropriate location on a large site at the western edge of the city,
- orienting development to allow the use and ease of circulation while fulfilling critical and extremely strict site security demands,
- proposing a building form that reflects the design vocabulary and material palette of surrounding commercial and industrial development,
- integrating landscaping into the site that enhances the building and serves as screening where needed.

The building responds to its natural landscape elements by placing the building and parking area on cleared areas and mostly preserving a mature stand of trees on the west side of the property and establishing a modern and functional structure that will be an attractive and unobtrusive addition to this area of the city.

## Section 73A. 100 - Single Family Design Standards

## Section 73A. 200 - Common Wall Design Standards

Finding: The proposed development contains no residential uses. These sections do not apply.

## Section 73A. 300 - Commercial Design Standards.

The following standards are minimum requirements for commercial development in all zones:
(1) Walkways. Commercial development must provide walkways as follows:
(a) Walkways must be a minimum of 6 feet in width;
(b) Walkways must be constructed of asphalt, concrete, or a pervious surface such as pavers or grasscrete (not gravel or woody material);
(c) Walkways must meet ADA standards applicable at time of construction or alteration;
(d) Walkways must be provided between the main building entrances and other on-site
buildings, accessways, and sidewalks along the public right-of-way;
(e) Walkways through parking areas, drive aisles, and loading areas must be visibly raised and of a different appearance than the adjacent paved vehicular areas;
(f) Bikeways must be provided that link building entrances and bike facilities on the site with adjoining public right-of-way and accessways; and
(g) Outdoor Recreation Access Routes must be provided between the development's walkway and bikeway circulation system and parks, bikeways and greenways where a bike or pedestrian path is designated.

Finding: As shown on the site plan, paved, minimum 6-foot-wide, ADA accessible walkways are provided in the following locations:

- Between the main building entrance and the parking lot
- On the south and west sides of the main building
- Around the west and south perimeter of the parking lot
- From the main building entrance to the guard booth
- From the SW Blake Street frontage to the guard booth

These pedestrian facilities will accommodate on-site pedestrian circulation for employees and visitors, while maintaining the necessary high level of access control and site security. The developed area of the site has only a single, highly-secure opening in the perimeter fence. Pedestrian connections outside the fence all funnel through this opening.

Bicycle access to the site is available between SW Blake Street and the main building via the controlled access point monitored by a gate and a guard booth. The IOC has ample bicycle parking both inside and outside the building, and entry for users will be via the main entry and around the west side of the parking lot.
(2) Accessways.
(a) When Required. Accessways are required to be constructed when a common wall development is adjacent to any of the following:
(3) Drive-up Uses. Drive-up uses must comply with the following:[...]

Finding: The proposed development is not a common wall development nor does it have any drive up uses. These standards do not apply.
(4) Safety and Security. Commercial development must provide safety and security features as follows:
(a) Locate windows and provide lighting in a manner that enables tenants, employees, and police to watch over pedestrian, parking, and loading areas;

Finding: As documented above and the Introduction section of this consolidated application, the site is purposefully isolated from surrounding streets for security reasons. The IOC will have 24 -hour staffing and security monitoring, in addition to perimeter fencing and highly restricted access.

As shown on elevation drawings, the proposed building has generous windows that face pedestrian, parking, and loading areas that are on the south and west sides of the development area.


Figure 1. South elevation of building

In addition, the building has site lighting around the building to illuminate pedestrian zones, and lighting within the parking lot to illuminate this area for evening and night use.
(b) Locate windows and interior lighting to enable surveillance of interior activity from the public right-of-way;

Finding: The IOC is not a typical, public-facing office or retail commercial development, this standard is not directly applicable. Interior lighting will enable trained security staff to monitor interior activity from outside the building. Elevation drawings show generous glazing on the building exterior. There will be buildingmounted light at the main entry canopies, at service entries, at the waste enclosure, and within the outdoor utility yard.

As documented in the above and the Introduction section of this application, the site is purposefully isolated from surrounding streets for security reasons. The IOC will have 24-hour monitoring in addition to fencing and highly restricted access. By design,
developed areas are at the center of the 43-acre site and are minimally visible from surrounding streets.

Site safety and security imperatives require that the IOC be set back a significant distance from streets, surrounded by security fencing to provide defensible space around the critical electrical infrastructure.
(c) Locate, orient, and select exterior lighting to facilitate surveillance of on-site activities from the public right-of-way without shining into public rights-of-way or fish and wildlife habitat areas;

Finding: Exterior lighting is shown on the lighting plan, which is included as part of the application drawing package. The lighting is designed to facilitate surveillance of onsite activities by trained security professionals on a 24 -hour basis. Lighting on poles inside the security fence will be motion-activated. Planned lighting focuses on activity areas inside the perimeter fence and does not shine into public rights-of-way. There are no inventoried fish and wildlife habitat on the site; lighting will not be directed towards the two delineated wetlands.

As noted above, developed areas are at the center of the 43-acre site, to satisfy site safety and security imperatives. Site security requires that the building be set back a significant distance from streets, and that berms and fencing provide defensible space around the critical electrical infrastructure. With the exception of a perimeter fence near the Blake Street and $124^{\text {th }}$ Avenue near the tower, site development will be set back a significant distance from the edge of adjacent rights-of-way.
(d) Provide an identification system which clearly locates buildings and their entries for patrons and emergency services; and

Finding: The new building will have a clearly designated identification number for patrons and emergency services. This application has been closely coordinated with the Tualatin Fire Department to enable future provision of those services. The only patrons of the highly secure new development will be PGE employees and visitors; the IOC is not open to the general public.
(e) Above ground sewer or water pumping stations, pressure reading stations, water reservoirs, electrical substations, and above ground natural gas pumping stations must provide a minimum 6 foot tall security fence or wall.

Finding: The IOC and related development will be enclosed behind an 8-foot security fence. At this point, the proposed development does not include any of the above listed elements; however, security fencing will be provided if any of the above-listed utilities are constructed on the site.
(5) Service, Delivery, and Screening. Commercial development must provide service, delivery, and screening features as follows:
(a) Above grade and on-grade electrical and mechanical equipment such as transformers, heat pumps and air conditioners must be screened with sight obscuring fences, walls or landscaping;

Finding: Proposed electrical or mechanical equipment such as that described will be screened, as shown on project drawings. Equipment that is within the outdoor mechanical/utility yard will be screened by a 14 foot fence and a landscaping. Rooftop mechanical equipment will be partially screened by parapet walls. Air-handling units will be enclosed in penthouses on the east wing of the building.
(b) Outdoor storage must be screened with a sight obscuring fence, wall, berm or dense evergreen landscaping; and

Finding: The entire IOC development will be screened by a combination of a landscaped berm and security fencing. The yard adjacent to the north side of the building will have building mechanical, electrical, plumbing, and fire suppression related equipment, including generators and fuel and water tanks. The mechanical yard will be screened with a 14 -foot security fence and landscaping, as shown on site drawings.
(c) Above ground pumping stations, pressure reading stations, water reservoirs; electrical substations, and above ground natural gas pumping stations must be screened with sightobscuring fences or walls and landscaping.

Finding: The proposed development does not include any of the above listed elements. Nevertheless, all the proposed development shown on the site plan is within an 8-foot security fence, which is required to protect critical electrical infrastructure. The only development outside the fence are driveways leading to the main entrance and secondary entrance, and a stormwater detention ponds in the northwest and northeast corners of the site, which will also be fenced.
(6) Adjacent to Transit. Commercial development adjacent to transit must comply with the following:
(a) Development on a transit street designated in TDC Chapter 11 (Figure 11-5) must provide either a transit stop pad on-site, or an on-site or public sidewalk connection to a transit stop along the subject property's frontage on the transit street.

Finding: Because the IOC is not typical, public-facing commercial development, this standard is not directly applicable. The IOC is not open to the public and is subject to FERC's CIP-014 rule, which requires a physical security plan restricting access from public streets to critical infrastructure.

The IOC and accessory uses will be surrounded by an 8-foot security fence to prevent unauthorized access to the site. The only employee and visitor access to the site comes from a private, gated driveway off SW Blake Street. The site has a gated emergency access from SW 120 th Avenue. Neither SW Blake or SW 120th are shown on City Figure 11-5 as transit streets.

The site has frontage on SW Tualatin-Sherwood Road, which is shown on this map as "Partial Fixed Route Shuttle Service" and "Expansions of Fixed Route Bus Transit Service." However, providing an on-site public sidewalk connection from the IOC building to a transit stop along the SW Tualatin-Sherwood Road would be inconsistent with the security imperatives of the site. There is a public sidewalk connection to the site from SW 124 ${ }^{\text {th }}$ Avenue and SW Blake Road into the site, leading to the guard booth.

Under FERC regulations, it would not be feasible within the security parameters of the site to have an open pedestrian connection at the north side of the development area leading to SW Tualatin-Sherwood Road. A secure fence is a baseline requirement for the proposed development. The first design principle identified in the introductory narrative explains, "The IOC will be designed as a secure 24 hour facility that deters and protects against existing and emergent physical and cyber threats, meets current and future regulatory requirements, and protects staff and critical assets." Restricting access is a primary method for protecting the critical assets located on the site.

The actual building where employees work is located approximately 540 feet from the edge of this frontage. Employees are not permitted to have regular access to the building except through the main entry at the south side of the development area. In the long run, other development may occur north of the IOC security fence line, closer to SW Tualatin-Sherwood Road. Washington County has plans to build out future SW Tualatin Sherwood Road improvements that will likely include sidewalks, plantings, and transit stops. PGE would be willing to commit to constructing a "transit stop pad" on its property, should the northern portion of the site develop for a publicly-accessible commercial use in the future.
(b) Development abutting major transit stops as designated in TDC Chapter 11 (Figure 11-5) must:[...]

Finding: City Map Figure 11-5 shows that the property does not abut any major transit stops. These requirements do not apply.

## Section 73A. 400 - Industrial Design Standards

Section 73A. 400 - Institutional Design Standards

Finding: The proposed IOC regional headquarters is not industrial or institutional development. These sections do not apply.

## Chapter 73B - Landscaping Standards

## Section 73B.010 - Landscape Standards Purpose and Objectives.

(1) Purpose. The purpose of this Chapter is to establish standards for landscaping within Tualatin in order to enhance the environmental and aesthetic quality of the City.
(2) Objectives. The objectives of this Chapter are to:
(a) Encourage the retention and protection of existing trees and requiring the planting of trees in new developments;
(b) Use trees and other landscaping materials to temper the effects of the sun, wind, noise, and air pollution.
(c) Use trees and other landscaping materials to define spaces and the uses of specific areas; and
(d) Use trees and other landscaping materials as a unifying element within the urban environment.

Finding: Although landscaping standards purpose and objectives are not in themselves approval standards, the landscape design connects the buildings and program together into a broader site improvement vision. Principles guiding the design are sustainability, simplicity, and durability. The landscape results in improved ecological functions including natural hydrology and wildlife values. Planting, grading and drainage approaches are integrated to allow stormwater management to be accommodated on site.

The design preserves many of the existing natural features of the site, including the forested area and drainage gully to the west and south of the proposed buildings. Where possible, existing trees are protected, and native trees will be planted as appropriate. Invasive or undesirable existing plantings will be removed to minimize future maintenance. Plant material that responds to native Oregon plant communities will be selected, focused on drought tolerance, durability, maintenance, and visual cohesion with the building design. The quantity, sizes, and species of plantings meets the Tualatin's requirements for landscape coverage, heritage tree replacement, and parking lot shading. The landscape screens the facility from the public ROW as much as possible, providing views from the street that are mostly vegetation.

Section 73B. 020 - Landscape Area Standards Minimum Areas by Use and Zone.
The following are the minimum areas required to be landscaped for each use and zone:

| Zone | Minimum Area <br> Requirement | Minimum Area Requirement <br> with dedication for a fish and <br> wildlife habitat* |
| :--- | :--- | :--- |
| (6) Industrial Business Park Overlay District <br> and MBP - must be approved through <br> Industrial Master Plans | 20\% of the total <br> area to be <br> developed | Not applicable |

Finding: The proposed development is in the MBP zone. As shown in a table on the Landscape Plan, 383,000 square feet of the developed area on the site $(44 \%)$ will be landscaped. Developed areas include the area within the security fence, and driveways leading to it. (An industrial master plan listed under the "zone" column above is allowed but not required for new development in the MBP zone, and none is requested.)

## Section 73B. 030 - Additional Minimum Landscaping Requirements for Common Wall Residential Uses.

Finding: The proposed development contains no common wall residential uses. This standard does not apply.

## Section 73B. 040 - Additional Minimum Landscaping Requirements for Commercial

 Uses.(1) General. In addition to requirements in TDC 73B.020, commercial uses must comply with the following:
(a) All areas not occupied by buildings, parking spaces, driveways, drive aisles, pedestrian areas, or undisturbed natural areas must be landscaped.
(i) This standard does not apply to areas subject to the Hedges Creek Wetlands Mitigation Agreement.

Finding: The northern and southern portions of the site will remain vacant and undeveloped. Existing tree cover and vegetation in the southern area will remain.

The Landscape Plan shows that all areas to be developed - not occupied by buildings, parking, driveways, drive aisles, pedestrian areas, and undisturbed natural areas - are landscaped. The site is not subject to the Hedges Creek Wetlands Mitigation Agreement.

Although not part of the Hedges Creek Wetlands Mitigation Agreement, the two wetlands on the site will be protected per CWS standards and will remain undisturbed.
(b) Minimum 5-foot-wide landscaped area must be located along all building perimeters viewable by the general public from parking lots or the public right-of-way, but the following may be used instead of the 5-foot-wide landscaped area requirement:
(i) Pedestrian amenities such as landscaped plazas and arcades; and
(ii) Areas developed with pavers, bricks, or other surfaces, for exclusive pedestrian use and contain pedestrian amenities, such as benches, tables with umbrellas, children's play areas, shade trees, canopies.

Finding: A five foot landscaped area is provided around the base of the building where it can be viewed from the parking lot. Because of topography, distance, and screening, much of the north and east sides of the building are not visible from any public right-ofway.
(c) 5-foot-wide landscaped area requirement does not apply to:
(i) loading areas,
(ii) bicycle parking areas,
(iii) pedestrian egress/ingress locations, and
(iv) where the distance along a wall between two vehicle or pedestrian access openings (such as entry doors, garage doors, carports and pedestrian corridors) is less than 8 feet.

Finding: A five foot landscaped area is provided around the base of the building where it can be viewed from the parking lot. Because of topography and screening, much of the building is not visible from public rights-of-way. Exceptions are applicable for bicycle parking and pedestrian ingress/egress areas from the main entrance to the parking area.
(d) Development that abuts an RL or MP Zone must have landscaping approved through Architectural Review and must provide and perpetually maintain dense, evergreen landscaped buffers between allowed uses and the adjacent RL and MP zones.

Finding: The proposed development does not abut any RL or MP zoned property. This standard does not apply.
(2) Manufacturing Park (MP) - Wetland Buffer. Wetland buffer areas up to 50 feet in width may be counted toward the required percentage of site landscaping, subject to the following:

Finding: The proposed development site is not in the MP zone. This standard does not apply. Nevertheless, wetland buffers will be provided around the two delineated wetlands per CWS standards.

## Section 73B. 050 - Additional Minimum Landscaping Requirements for Industrial Uses.

Section 73B. 060 - Additional Min. Landscaping Requirements for Institutional Uses.

Finding: The proposed development is not industrial or institutional. These requirements do not apply.

## Section 73B. 070 - Minimum Landscaping Standards for All Zones.

The following are minimum standards for landscaping for all zones.[...]
Finding: Sheet L-4, Landscape Plan has details and specifications that demonstrate compliance with the planting standards contained in the detailed table in TDC 73B.070.

## Section 73B. 080 - Minimum Standards Trees and Plants

The following minimum standards apply to the types of landscaping required to be installed for all zones. [...]

Finding: The proposed plans have details that demonstrate compliance with the planting standards contained in the detailed table in TDC 73B.080.

## Chapter 73C - Parking Standards

## Section 73C. 010 Off-Street Parking and Loading Applicability and General Requirements

(1) Applicability. Off-street parking and loading is required to be provided by the owner and/or developer, in all zones, whenever the following occurs:
(a) Establishment of a new structure or use;
(b) Change in use; or
(c) Change in use of an existing structure.

Finding: The proposed development establishes both a new structure and use. This section applies.
(2) General Requirements. Off-street parking spaces, off-street vanpool and carpool parking spaces, off-street bicycle parking, and off-street loading berths must be as provided as set forth in TDC 73C.100, unless greater requirements are otherwise established by the conditional use permit or the Architectural Review process.
(a) The following apply to property and/or use with respect to the provisions of TDC 73C.100:
(i) The requirements apply to both the existing structure and use, and enlarging a structure or use;
(ii) the floor area is measured by gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading;
(iii) Where employees are specified, the term applies to all persons, including proprietors, working on the premises during the peak shift;
(iv) Calculations to determine the number of required parking spaces and loading berths must be rounded to the nearest whole number;

Finding: The existing structures on the site at the north side of the property facing SW Tualatin-Sherwood Road will be removed before building occupancy. Parking and loading requirements will be applied to the new IOC building.

The quantity of parking provided is based on the entire building being a "general office" use. This is based on floor area and not employees. Calculations provided in response to the parking ratios are rounded up to the nearest whole number.
(v) If the use of a property changes, thereby increasing off-street parking or loading requirements, the increased parking/loading area must be provided prior to commencement of the new use;

Finding: The development proposed for the site is new, and off-street parking and loading for the new use will be provided prior to the commencement of that activity on the property.
(vi) Parking and loading requirements for structures not specifically listed herein must be determined by the City Manager, based upon requirements of comparable uses listed;

Finding: The proposed parking and loading requirements for the IOC building (a "general office" use) are specifically listed. Parking is not required for accessory uses, which include the WCF, parking and loading, outdoor equipment, emergency turnaround and helistop, landscaping, and fencing.
(vii) When several uses occupy a single structure, the total requirements for off-street parking may be the sum of the requirements of the several uses computed separately or be computed in accordance with TDC 73.370(1)(m), Joint Use Parking;

Finding: The proposed structure is occupied by office uses. This is a single use that does not need to be computed separately. This requirement does not apply.
(viii) Off-street parking spaces for dwellings must be located on the same lot with the dwelling. Other required parking spaces may be located on a separate parcel, provided the parcel is not greater than five hundred (500) feet from the entrance to the building to be served, measured along the shortest pedestrian route to the building. The applicant must prove that the parking located on another parcel is functionally located and that there is safe vehicular and pedestrian
access to and from the site. The parcel upon which parking facilities are located must be in the same ownership as the structure;

Finding: The proposed development and its parking are on the same parcel.
(ix) Required parking spaces must be available for the parking of operable passenger automobiles of residents, customers, patrons and employees and must not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business;

Finding: The Parking and Circulation Plan shows that the required parking is available for passenger automobiles for employees and visitors to the site. No storage of vehicles or materials, or parking of trucks will occur in these spaces.
(x) Institution of on-street parking, where none is previously provided, must not be done solely for the purpose of relieving crowded parking lots in commercial or industrial zones; and

Finding: The proposed development does not institute any on-street parking.
(xi) Required vanpool and carpool parking must meet the 9-foot parking stall standards in Figure 73-1 and be identified with appropriate signage.

Finding: The Parking and Ciruculation Plan shows 14 carpool spaces. These spaces meet the dimensional standards in Figure 73-1 and have the appropriate signage.

## Section 73C. 020 - Parking Lot Design Standards.

A parking lot, whether an accessory or principal use, intended for the parking of automobiles or trucks, must comply with the following:
(1) Off-street parking lot design must comply with the dimensional standards set forth in Figure 73-1; (a) Exception: Parking structures and underground parking where stall length and width requirements for a standard size stall must be reduced by .5 feet and vehicular access at the entrance if gated must be a minimum of 18 feet in width.

Finding: The Site Plan shows the parking lot to the southeast of the operations center building. The Parking and Circulation Plan shows that the parking lot design meets all the dimensional standards in Figure 73-1.
(2) Parking lot drive aisles must be constructed of asphalt, concrete, or pervious concrete;
(3) Parking stalls must be constructed of asphalt, concrete, previous concrete, or a pervious surface such as pavers or grasscrete, but not gravel or woody material. Pervious surfaces, are encouraged for parking stalls in or abutting the Natural Resource Protection Overlay District, Other Natural Areas, or in a Clean Water Services Vegetated Corridor; (4) Parking lots must be maintained adequately for all-weather use and drained to avoid water flow across sidewalks;

Finding: All the driving surfaces of the parking area will be paved, including aisles and stalls. The parking lot will be sloped and maintained to enable all-weather use and manage stormwater. There are no public sidewalks near the proposed lot.
(5) Parking bumpers or wheel stops or curbing must be provided to prevent cars from encroaching on adjacent landscaped areas, or adjacent pedestrian walkways.
(6) Disability parking spaces and accessibility must meet ADA standards applicable at time of construction or alteration;
(7) Parking stalls for sub-compact vehicles must not exceed 35 percent of the total parking stalls required by TDC 73C.100. Stalls in excess of the number required by TDC 73C. 100 can be subcompact stalls;

Finding: As shown on the Parking and Circulation Plan, a combination of curbs and wheel stops have been provided as needed to avoid encroachment on adjacent landscaped areas. Eight ADA spaces are provided in the northwest corner of the parking area consistent with ADA regulations. No sub-compact spaces have been provided.
(8) Groups of more than 4 parking spaces must be so located and served by driveways that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley;
(9) Drives to off-street parking areas must be designed and constructed to facilitate the flow of traffic, provide maximum safety of traffic access and egress, and maximum safety of pedestrians and vehicular traffic on the site;

Finding: As shown on the Site Plan, the parking lot is not located next to any street right-of-way, so no vehicles will be required to back into a street right-of-way. The long driveway from SW Blake Street to the parking lot on site has been designed to accommodate the flow of traffic into and out of the site and maximum safety of access and egress, considering the guard booth at the perimeter fence. Pedestrian movement will be along the western edge and runs the entirety of the parking area to the outdoor bike facilities and main building entrance.
(10) On-site drive aisles without parking spaces, which provide access to parking areas with regular spaces or with a mix of regular and sub-compact spaces, must have a minimum width of 22 feet for two-way traffic and 12 feet for one-way traffic; When 90 degree stalls are located on both sides of a drive aisle, a minimum of 24 feet of aisle is required. On-site drive aisles without parking spaces, which provide access to parking areas with only sub-compact spaces, must have a minimum width of 20 feet for two-way traffic and 12 feet for one-way traffic;

Finding: There are a variety of drive aisles within the parking area - without parking (e.g., the approach to the guard booth), and with parking. As shown on the Parking and Circulation Plan, all of these aisles have widths of 22 feet or more. The parking lot is designed with 90 degree stalls; the aisle widths serving these stalls is at least 24 feet. The
drive aisles that serve as fire lanes meet width requirements for emergency vehicle access, which exceeds 24 feet.
(11) Artificial lighting, must be deflected to not shine or create glare in a residential zones, street right-of-way, a Natural Resource Protection Overlay District, Other Natural Areas, or a Clean Water Services Vegetated Corridor;

Finding: Parking lot lighting is provided as shown on the Lighting Plan. Lighting will be full cut off and directed downwards towards the driving and walking surfaces. A luminaire schedule with details is included with the Lighting Plan. Since the parking lot is distant from streets that abut the site, lights will not shine into any street rights-ofway. The site is almost three-quarters of a mile (3,700 feet) from the nearest residential area, and hundreds of feet from any natural resource overlay district or natural areas.
(12) Parking lot landscaping must be provided pursuant to the requirements of TDC 73C.200; and

Finding: As shown on the Landscape Plan and Site Plan, the parking area is interspersed with trees and other landscaping as required by TDC 73C.200. Specific responses are given below in that section.
(13) Except for parking to serve residential uses, parking areas adjacent to or within residential zones or adjacent to residential uses must be designed to minimize disturbance of residents.

Finding: The parking lot on site is 3,700 feet from the nearest residential zone. There will be no disturbance to residents at this distance.

## Section 73C. 030 - Shared Parking Requirements[...] <br> Section 73C. 040 - Joint Use Parking Requirements[...]

Finding: No shared parking or joint use parking is proposed. All the off-street parking on the site will be for exclusive use by employees or visitors to the site.

## Section 73C. 050 - Bicycle Parking Requirements and Standards.

(1) Requirements. Bicycle parking facilities must include:
(a) Long-term parking that consists of covered, secure stationary racks, lockable enclosures, or rooms in which the bicycle is stored;
(i) Long-term bicycle parking facilities may be provided inside a building in suitable secure and accessible locations.
(b) Short-term parking provided by secure stationary racks (covered or not covered), which accommodate a bicyclist's lock securing the frame and both wheels.

Finding: The on-site bicycle parking includes both long-term and short-term racks. 22 Long-term spaces are provided within the building in a secure room with a separate entrance to the exterior. In addition, 32 short-term staple-type racks are provided outside the building on the south side of the structure, as shown on the Parking and Circulation Plan.
(2) Standards. Bicycle parking must comply with the following:
(a) Each bicycle parking space must be at least six feet long and two feet wide, with overhead clearance in covered areas must be at least seven feet;
(b) A five (5) foot-wide bicycle maneuvering area must be provided beside or between each row of bicycle parking. It must be constructed of concrete, asphalt, or a pervious hard surface such as pavers or grasscrete, and be maintained;
(c) Access to bicycle parking must be provided by an area at least three feet in width. It must be constructed of concrete, asphalt, or a pervious hard surface such as pavers or grasscrete, and be maintained;
(d) Bicycle parking areas and facilities must be identified with appropriate signing as specified in the Manual on Uniform Traffic Control Devices (MUTCD) (latest edition). At a minimum, bicycle parking signs must be located at the main entrance and at the location of the bicycle parking facilities;
(e) Bicycle parking must be located in convenient, secure, and well-lighted locations approved through the Architectural Review process. Lighting, which may be provided, must be deflected to not shine or create glare into street rights-of-way or fish and wildlife habitat areas;
(f) Required bicycle parking spaces must be provided at no cost to the bicyclist, or with only a nominal charge for key deposits, etc. This does not preclude the operation of private for-profit bicycle parking businesses;
$(g)$ Bicycle parking may be provided within the public right-of-way in the Core Area Parking District subject to approval of the City Engineer and provided it meets the other requirements for bicycle parking; and
(h) The City Manager or the Architectural Review Board may approve a form of bicycle parking not specified in these provisions but that meets the needs of long-term and/or short-term parking pursuant to Architectural Review.

Finding: Bike parking will be provided as shown on the Parking and Circulation Plan. Indoor parking is provided through a secondary entry in the front (south side) of the building. The short-term bike parking area will be outside of this secondary entry, adjacent to the building. This bike parking area is paved, lighted, close to the main entrance of the building, within a highly secure facility, and spaced to meet all the listed maneuvering standards.

## Section 73C. 060 - Transit Facility Conversion.

Parking on existing residential, commercial, and industrial development may be redeveloped as a transit facility as a way to encourage the development of transit supportive facilities such as bus stops and pullouts, bus shelters and park and ride stations. Parking spaces converted to such
uses in conjunction with the transit agency and approved through the Architectural Review process will not be required to be replaced.

Finding: No redevelopment is proposed. This standard is not applicable.

## Section 73C. 100 - Off-Street Parking Minimum/Maximum Requirements.

(1) The following are the minimum and maximum requirements for off-street motor vehicle parking in the City, except these standards do not apply in the Core Area Parking District. The Core Area Parking District standards are in TDC 73C.110.

| USE | MINIMUM MOTOR VEHICLE PARKING | MAXIMUM MOTOR VEHICLE PARKING | BICYCLE <br> PARKING | PERCENTAGE OF BICYCLE PARKING TO BE COVERED |
| :---: | :---: | :---: | :---: | :---: |
| (e) Commercial |  |  |  |  |
| (vi) General office | 2.70 spaces per 1,000 square feet of gross floor area | Zone A: 3.4 spaces per <br> 1,000 square <br> feet of gross <br> floor area <br> Zone B: 4.1 <br> spaces per <br> 1,000 square <br> feet of gross <br> floor area | 2, or 0.50 spaces per 1,000 gross square feet, whichever is greater | First 10 spaces or $40 \%$, whichever is greater |

Finding: The proposed development is an office headquarters use. This most closely fits the category "general office" listed in the parking table under section (1)(e)(vi).

The required ratio for motor vehicle parking is $2.7-4.1$ spaces per 1,000 square feet. At 108,000 square feet, the motor vehicle space requirement is a range: 292 spaces minimum and 443 spaces maximum. The site plan shows 338 spaces - within the required range.

The required ratio for bike parking is 0.5 spaces per 1,000 square feet, of which 40 percent must be covered. At 108,000 square feet, 54 bike parking spaces are required. 22 of which must be covered. The site provides 54 total bike parking spaces, 22 of which are interior to the building and therefore covered. This meets the standard.
(2) In addition to the general parking requirements in subsection (1), the following are the minimum number of off-street vanpool and carpool parking for commercial, institutional, and industrial uses.

| Number of Required Parking Spaces | Number of Vanpool or Carpool Spaces |
| :---: | :---: |
| 0 to 10 | 1 |
| 10 to 25 | 2 |
| 26 and greater | 1 for each 25 spaces |

Finding: The proposed parking area has 338 parking spaces. This results in a requirement for 14 carpool spaces. 14 carpool spaces are provided as shown on the Parking and Circulation plan. Therefore, the requirement is met.

Section 73C. 110 - Core Area Parking District Minimum Parking Requirements. Uses in the Core Area Parking District must comply with the following parking requirements:[...]

Finding: The proposed development is not in the Core Area Parking District. This requirement does not apply.

## Section 73C. 120 - Off-Street Loading Facilities Minimum Requirements.

(1) The minimum number of off-street loading berths for commercial, industrial, and institutional uses is as follows:

| Use | Square Feet of Floor <br> Area | Number <br> of <br> Berths | Dimensions of <br> Berth | Unobstructed <br> Clearance of Berth |
| :---: | :---: | :---: | :---: | :---: |
| Commercial | Less than 5,000 | 0 | 0 | 0 |
|  | $5,000-25,000$ | 1 | 12 feet $\times 25$ feet | 14 feet |
|  | $25,000-60,000$ | 2 | 12 feet $\times 35$ feet | 14 feet |
|  | 60,000 and over | 3 | 12 feet $\times 35$ feet | 14 feet |

(2) Loading berths must not use the public right-of-way as part of the required off-street loading area.
(3) Required loading areas must be screened from public view, public streets, and adjacent properties by means of sight-obscuring landscaping, walls or other means, as approved through the Architectural Review process.

Finding: Consistent with requirements for commercial uses, three off-street loading berths (delivery unloading areas) are proposed for IOC functions. As shown on the ARL090, two delivery unloading areas are located on the west side of the building, adjacent to the utility yard and the north portion of the main buildings. A third delivery unloading area is adjacent to the exterior waste area at the southeast corner of the main building. The west delivery unloading areas and east delivery area near the main building entry are all larger than the minimum 12 feet by 35 feet requirement. All three delivery unloading areas are uncovered and have unobstructed berth clearance of 14 feet. Since all delivery unloading areas are within the security fence perimeter on private property, public ROWs are not used as loading berth areas in this development.

The delivery unloading areas only service the IOC building, and the IOC building is set deep within a 43-acre site. All delivery areas are within a security fence perimeter that acts as a screen for all IOC activities from public ROWs, public view, and adjacent properties. Additionally, the two delivery unloading areas on the west side of the building are screened from the public by a row of trees along SW 124 th and additional trees planted closer to the drive aisle delivery access. Berms and an oak savannah planting mix are also used as screening materials for the west side delivery unloading areas. The east delivery unloading area is screened from public view by both the security perimeter fence and the parking lot landscaping. Views of the delivery unloading area are obstructed by three parking islands planted with trees - two to the east, one for the south. The screening around the exterior waste storage area screens the delivery unloading area from the north.
(4) Required loading facilities must be installed prior to final building inspection and must be permanently maintained as a condition of use.
(5) The off-street loading facilities must in all cases be on the same lot or parcel as the structure they are intended to serve. In no case must the required off-street loading spaces be part of the area used to satisfy the off-street parking requirements.

Finding: All delivery unloading areas are a planned improvement with the proposed IOC, and they will be installed prior to the final building inspection. All three delivery unloading areas are on the same lot as, and will serve, the IOC.
(6) A driveway designed for continuous forward flow of passenger vehicles for the purpose of loading and unloading children must be located on the site of a school or child day care center having a capacity greater than 25 students.

Finding: The IOC is a commercial use. This standard does not apply.

## Section 73C. 130 - Parking Lot Driveway and Walkway Minimum Requirements.

Parking lot driveways and walkways must comply with the following requirements:[...]
(2) Commercial Uses. Ingress and egress for commercial and institutional uses must not be less than the following:

| Required Parking <br> Spaces | Minimum Number <br> Required | Minimum Pavement <br> Width | Minimum Pavement <br> Walkways, Etc. |
| :---: | :---: | :---: | :---: |
| $1-99$ | 1 | 32 feet for first 50 feet <br> from ROW, 24 feet <br> thereafter |  |
| $100-249$ | 2 | Curbs required; walkway 1 <br> side only |  |
| Over 250 | As required by City <br> Manager | As required by City <br> Manager for first 50 feet <br> from ROW, 24 feet <br> thereafter | Curbs required; walkway 1 <br> side only |

Finding: The proposed development requires 292 parking spaces ( 338 are provided). Consequently, the parking area requires ingress and egress, minimum pavement width, and minimum pavement walkways "as required by city manager."

The proposed parking lot plan shows one primary point of ingress and egress, to maintain a high level of site security. There is a second ingress/egress path from the parking lot to the northeast and SW $120^{\text {th }}$ Avenue, which will be used in case of emergencies. The width of the driveway leading to the parking area is 26 feet. The walkway along the driveway and circulating along the west edge of the parking area to the main building entrance is a minimum of six feet wide. This presents a generous and appropriate environment for pedestrian activity, while maintaining smooth circulation for vehicles.
(5) One-way Ingress or Egress. When approved through the Architectural Review process, oneway ingress or egress may be used to satisfy the requirements. However, the hard surfaced pavement of one-way drives must not be less than 16 feet for multi-family residential, commercial, or industrial uses.

Finding: The proposed ingress and egress from the parking area is two-way. No oneway drives are proposed.
(6) Maximum Driveway Widths and Other Requirements.
(a) Unless otherwise provided in this chapter, maximum driveway widths for Commercial, Industrial, and Institutional uses must not exceed 40 feet.
(b) Driveways must not be constructed within 5 feet of an adjacent property line, unless the two adjacent property owners elect to provide joint access to their respective properties, as provided by TDC73C.040.
(c) The provisions of subsection (b) do not apply to townhouses and duplexes, which are allowed to construct driveways within 5 feet of adjacent property lines.
(d) There must be a minimum distance of 40 feet between any two adjacent driveways on a single property unless a lesser distance is approved by the City Manager.
(e) Must comply with the distance requirements for access as provided in TDC 75.
(f) Must comply with vision clearance requirements in TDC 75.

Finding: The proposed main driveway width from SW Blake Street is 26 feet, as shown on the site plan. The driveway access is located much farther than 5 feet from any property line

## Parking Lot Landscaping

## Section 73C. 200 - Parking Lot Landscaping Standards Purpose and Applicability.

(1) Purpose. The goals of the off-street parking lot standards are to create shaded areas in parking lots, to reduce glare and heat buildup, provide visual relief within paved parking areas, emphasize circulation patterns, reduce the total number of spaces, reduce the impervious surface area and stormwater runoff, and enhance the visual environment. The design of the off-street parking area must be the responsibility of the developer and should consider visibility of signage, traffic circulation, comfortable pedestrian access, and aesthetics.
(2) Applicability. Off-street parking lot landscaping standards apply to any surface vehicle parking or circulation area.

Finding: The proposed site plan includes a parking area that is subject to the landscaping standards of this section.

## Section 73C. 210 - Common Wall Parking Lot Landscaping Requirements.[...]

Finding: The proposed development does not have common wall development. This standard does not apply.

## Section 73C. 220 - Commercial Parking Lot Landscaping Requirements.

Commercial uses must comply with the following landscaping requirements for parking lots in all zones:
(1) General. Locate landscaping or approved substitute materials in all areas not necessary for vehicular parking and maneuvering.

Finding: The proposed parking area has landscaping in all areas that are not necessary for parking and maneuvering. This includes the areas around the edge of the parking lot but within the perimeter fence, and islands between parking spaces.
(2) Clear Zone. Clear zone required for the driver at ends of on-site drive aisles and at driveway entrances, vertically between a maximum of 30 inches and a minimum of 8 feet as measured from the ground level.
(a) Exception: does not apply to parking structures and underground parking.

Finding: The parking lot plan contains clear zones at the ends of on-site drive aisles as indicated.
(3) Perimeter. Minimum 5 feet in width in all off-street parking and vehicular circulation areas, including loading areas and must comply with the following.
(a) Deciduous trees located not more than 30 feet apart on average as measured on center;
(b) Shrubs or ground cover, planted so as to achieve 90 percent coverage within three years;
(c) Plantings which reach a mature height of 30 inches in three years which provide screening of vehicular headlights year round;
(d) Native trees and shrubs are encouraged; and
(e) Exception: Not required where off-street parking areas on separate lots are adjacent to one another and connected by vehicular access.

Finding: As shown on the site plan and landscape plan, there is perimeter landscaping in all parking and vehicular circulation areas that meet the planting standards identified above.
(4) Landscape Island. Minimum 25 square feet per parking stall must be improved with landscape island areas and must comply with the following.
(a) May be lower than the surrounding parking surface to allow them to receive stormwater runoff and function as water quality facilities as well as parking lot landscaping;
(b) Must be protected from vehicles by curbs, but the curbs may have spaces to allow drainage into the islands;
(c) Islands must be utilized at aisle ends to protect parked vehicles from moving vehicles and emphasize vehicular circulation patterns;
(d) Landscape separation required for every eight continuous spaces in a row.
(e) Must be planted with one deciduous shade trees for every four parking spaces; Required trees must be evenly dispersed throughout the parking lot;
(f) Must be planted with groundcover or shrubs;
(g) Native plant materials are encouraged;
(h) Landscape island areas with trees must be a minimum of five feet in width (from inside of curb to curb);
(i) Required plant material in landscape islands must achieve 90 percent coverage within three years; and
(j) Exceptions:
(i) Landscape island requirements do not apply to Duplexes and Townhouses; and
(ii) Landscape square footage requirements do not apply to parking structures and underground parking.

Finding: Landscape islands are provided in the parking lot in accordance with the requirements above, as demonstrated on the site plan and landscape plan. Area calculations are provided in a table on the plan.
(5) Driveway Access. For lots with 12 or more parking spaces, site access from the public street must be defined by:
(a) Landscape area at least 5 feet in width on each side of the site access;
(b) Landscape area must extend 25 feet from the right-of-way line; and
(c) Exceptions: Does not apply to parking structures and under-ground parking which must be determined through the Architectural Review process.

Finding: The driveway access from SW Blake Street is landscaped along the first 25 feet from the ROW line, as shown on the Landscape Plan.

## Section 73C. 230 - Industrial Parking Lot Landscaping Requirements. [...] <br> Section 73C. 240 - Institutional Parking Lot Landscaping Requirements [...]

Finding: The proposed development is not industrial or institutional. These sections do not apply.

## Chapter 73D - Waste and Recyclables Management Standards

## Section 73D.010 - Applicability and Objectives.

(1) Applicability. The requirements of this Chapter apply to all new or expanded:
(a) Common wall residential developments containing five or more units;
(b) Commercial developments;
(c) Industrial developments;
(d) Institutional developments.
(2) Objectives. Mixed solid waste and source separated recyclable storage areas should be designed to the maximum extent practicable to:
(a) Screen elements such as garbage and recycling containers from view;
(b) Ensure storage areas are centrally located and easy to use;
(c) Meet dimensional and access requirements for haulers;
(d) Designed to mitigate the visual impacts of storage areas;
(e) Provide adequate storage for mixed solid waste and source separated recyclables; and
(f) Improve the efficiency of collection of mixed solid waste and source separated recyclables.

Finding: The proposed development is an integrated operations center, a commercial development. This chapter applies.

## Section 73D. 020 - Design Methods.

An applicant required to provide mixed solid waste and source separated recyclables storage areas must comply with one of following methods:
(1) The minimum standards method in TDC 73D.030;
(2) The waste assessment method in TDC 73D.040;
(3) The comprehensive recycling plan method in TDC 73D.050; or
(4) The franchised hauler review method in TDC 73D.060.

Finding: As shown on the included Site Plan, the development proposes a solid waste and recyclables storage facility on the east side of the main building. The size and location of the waste storage area has been coordinated with Republic Services, the waste-hauler for this location of the city, and follows the Minimum Standards method in subsection (1).

## Section 73D. 030 - Minimum Standards Method.

This method specifies a minimum storage area requirement based on the size and general use category of the new or expanded development. This method is most appropriate when specific use of a new or expanded development is not known. It provides specific dimensional standards for the minimum size of storage areas by general use category.
(1) The size and location of the storage area(s) must be indicated on the site plan. Requirements are based on an assumed storage area height of four feet for mixed solid waste and source separated recyclables. Vertical storage higher than four feet, but no higher than 7 feet may be used to accommodate the same volume of storage in a reduced floor space (potential reduction of 43 percent of specific requirements). Where vertical or stacked storage is proposed, submitted plans must include drawings to illustrate the layout of the storage area and dimensions for containers.

Finding: The size and location of the waste storage areas are indicated on AR-A101, Level 1 Plan, and AR-A120, Site Structures. In summary, there are two locations for waste storage: an interior waste room, directly accessible from the exterior of the building, and an exterior waste storage area. Haulers will provide service for the exterior waste storage area, while the internal waste storage area will serve employees. The exterior waste storage area will hold a rolling compost bin and two 8-yard waste bins dedicated for landfill and recycling. The exterior storage area is a three-sided enclosure with an 18 -foot wide, clear-opening access and no center post. No vertical or stacked storage is proposed.
(2) The storage area requirement is based on uses. If a building has more than one use and that use occupies 20 percent or less of the gross leasable area (GLA) of the building, the GLA occupied by that use must be counted toward the floor area of the predominant use(s). If a building has more than one use and that use occupies more than 20 percent of the GLA of the building, then the storage area requirement for the whole building must be the sum of the area of each use. Minimum storage area requirements by use is as follows:
(a) Common wall residential 5-10 units must provide 50 square feet.
(b) Common wall residential greater than 10 units must provide 50 square feet plus an (additional 5 square feet per unit above 10.
(c) Commercial, industrial, and institutional developments must provide a minimum storage area of 10 square feet plus:
(i) Office - 4 square feet/1000 square feet gross leasable area (GLA);
(ii) Retail-10 square feet/1000 square feet GLA;
(iii) Wholesale/ Warehouse/ Manufacturing - 6 square feet/1000 square feet GLA;
(iv) Educational and Institutional - 4 square feet/1000 square feet GLA; and
(v) All other uses- 4 square feet/1000 square feet GLA.
(3) Mixed solid waste and source separated recyclables storage areas for multiple tenants on a single site may be combined and shared.

Finding: The proposed IOC contains 100,000 square feet of gross leasable area. As a commercial development with 100,000 square feet of GLA, the minimum storage area requirement is 410 sq . ft . The waste storage area inside the building is 200 sq . ft .; the waste storage area outside the building is 260 sq . ft . Therefore, 460 sq . ft . of waste storage area is proposed in total, which exceeds the minimum standard of 410 sq . ft .

## Section 73D. 070 - Location, Design and Access Standards.

The following location, design, and access standards are applicable to all storage areas:
(1) Location Standards.
(a) The storage area for source separated recyclables may be collocated with the storage area for mixed solid waste.
(b) Storage area space requirements can be satisfied with a single location or multiple locations, and can combine both interior and exterior locations.
(c) Exterior storage areas must:
(i) Be located in central and visible locations on the site to enhance security for users;
(ii) Be located in a parking area; and
(iii) Not be located within a required front yard setback or in a yard adjacent to a public or private street.

Finding: The proposed development plans for two mixed solid waste storage areas, one interior and one exterior. The exterior waste storage area is located adjacent to the parking area, east of the IOC building. The waste storage area is visible on the site for users and waste haulers. As shown on the Site Plan, the interior waste storage area is
planned directly inside the building with direct pedestrian access to the exterior storage area. The exterior storage area is set close to the IOC and not located within yard setbacks or ROWs.
(2) Design Standards.
(a) The dimensions of the storage area must accommodate containers consistent with current methods of local collection at time of construction or alteration.
(b) Indoor and outdoor storage areas must comply with Oregon Building and Fire Code requirements.
(c) Exterior storage areas must be enclosed by a sight obscuring fence or wall at least 6 feet in height.
(d) Evergreen plants must be placed around the enclosure walls, excluding the gate or entrance openings for common wall, commercial, and institutional developments.

Finding: The exterior waste storage area will accommodate two 8-yard waste bins, and it has been designed to Oregon's current Building and Fire Code requirements. Both the Tualatin Fire Department and Republic Services, the site's waste-hauler, have been consulted to ensure ease of access and compliance. The exterior waste storage area will have a 6-foot high concrete wall with no overhead canopy. Evergreen plants are planned along the north, west, and south sides of the exterior waste storage area.
(e) Gate openings for haulers must be a minimum of 10 feet wide and must be capable of being secured in a closed and open position.

Finding: The exterior waste storage area provides 120-degree swinging gates with an 18 -foot clear opening. These gates will have bolt holes at both the open and closed positions. This configuration has been approved by the site's waste-hauler, Republic Services.
(f) Horizontal clearance must be a minimum of 10 feet and a vertical clearance of 8 feet is required if the storage area is covered.
(g) A separate pedestrian access must also be provided in common wall, commercial, and institutional developments.

Finding: The waste storage area will not be covered, and the development is not a common wall commercial development. This standard does not apply.
(h) Exterior storage areas must have either a concrete or asphalt floor surface.
(i) Storage areas and containers must be clearly labeled to indicate the type of material accepted.

Finding: The exterior waste storage area will be based on a concrete pad, and all waste storage containers will be clearly labeled to indicate landfill, recycling, or compost collection.
(3) Access Standards.
(a) Storage areas must be accessible to users at convenient times of the day, and to hauler personnel on the day and approximate time they are scheduled to provide hauler service.
(b) Storage areas must be designed to be easily accessible to hauler trucks and equipment, considering paving, grade, gate clearance and vehicle access.
(c) Storage areas must be accessible to hauler trucks without requiring backing out of a driveway onto a public street. If only a single access point is available to the storage area, adequate turning radius must be provided to allow hauler trucks to safely exit the site in a forward motion.
(d) Storage areas must located so that pedestrian and vehicular traffic movement are not obstructed on site or on public streets adjacent to the site.
(e) The following is an exception to the access standard:
(i) Access may be limited for security reasons

Finding: For ease of user access and for site security reasons, the exterior waste storage area will be near the east wall of the IOC, adjacent to the parking area, and within the security fence perimeter. Republic Services will have access to the enclosure through the main site entrance from SW Blake Street. The 26 -foot drive aisles and straight truck approach into the exterior waste storage area ensures that convenient access for haulers. Republic Services has reviewed the proposed waste storage area orientation and has confirmed access is acceptable. The waste storage area also includes a human door for pedestrian access. The door is placed on the south wall of the waste storage area. A paved pedestrian path connects the interior waste room with the exterior waste area. The location choice, door placements, and pedestrian connection create convenient user access.

The design of the storage area allows haulers avoid any backward movements during circulation. The waste-haulers can drive directly into the enclosure from the east, and then turn left to exit south through the parking lot.

Sidewalks do not cross in front of the waste storage area. Pedestrian circulation is directed to the west and south, away from crossing between the waste storage area and waste-hauler access in the parking lot. Locating the waste storage area near the east wall of the IOC building reduces the possibility of either pedestrian or traffic obstruction. There are two north-south drive aisles in the parking lot that allow traffic an exit route when waste-haulers are servicing the site. Additionally, by maintaining the waste storage area on site, adjacent to the parking lot, within the security perimeter fencing, public ROW is not obstructed.

## Chapter 73F - Wireless Communications Facilities

## Section 73F. 010 - Purpose and Objectives.

(1) Purpose. The purpose of wireless communication facility design objectives and standards is to implement the purpose and objectives of TDC 73A. 010 by focusing on the placement, design and relationship of proposed site elements such as support structure location, lighting, screening, fencing and landscaping.
(2) Objectives. All wireless communication facilities and attached facilities should strive to meet the following objectives to the maximum extent practicable. Architects and developers should consider these elements in designing new development. In the case of conflicts between objectives, the proposal must provide a desirable balance between the objectives. Site elements must be placed and designed, to the maximum extent practicable, to: Be aesthetically and architecturally designed and located to be compatible with the surrounding environment and analyze co-location before seeking new sites.
(a) Select colors in consideration of lighting conditions and the context under which the structure is viewed, the ability of the material to absorb, reflect or transmit light and the color's functional role, e.g., aesthetic reasons.

Finding: The proposed wireless communication tower will be a neutral, non-reflective, gray color. Based on PGE's experience with similar facilities in other locations, this color has been found to blend in to the background conditions as much as possible, given the constant changes in sky color and different background contexts.
(b) Select platform and antenna designs which minimize their size and visual appearance to surrounding development.

Finding: The tower platform is a concrete pad that will support the proposed support structure. The base of the tower and its platform will be entirely concealed from neighboring properties by a fence and the surrounding tree grove. As much as possible, as described in this document, the design and locational choices for the WCF minimize the size and visual appearance of the tower. Surrounding development that could be affected is largely industrial in nature.
(c) Provide a composition of structural material elements which is cohesive and responds to use needs, site context, land form, a sense of place and identity, safety, and climatic factors.

Finding: The proposed WCF is a self-supporting, lattice-type tower, composed of sturdy, lightweight steel elements, on a concrete pad base. Microwave radio dish antennae are attached to the upper part of the tower. The composition of the tower is industry-standard for it to carry out its purpose and be operational. At the same time, the structure is placed in a grove of tall trees and is therefore hidden as much as possible within its setting. A monopole tower of this height would need to be so thick that it would be much more visually obtrusive. The lattice-type metal tower is more visually transparent. This area is also an industrial corner of the city where major communications infrastructure is not out of place.
(d) Select materials which contribute to the project's form and function, as well as to the surrounding environment.

Finding: The communication tower will be a four-legged, self-supporting, lattice-style metal structure with attached microwave dish antennae. A small utility shack will be located at the base of the tower, and the footprint of the entire communications facility will be enclosed within a security fence. The materials of which the tower is made are industry-standard for a tower of this height and to achieve its function
(e) Minimize disruption of natural site features such as topography, trees, and water features.
(f) Take into consideration the existing topography of the site and surrounding vicinity.
(g) Reduce the visual impact of the support structure by locating within stands of existing vegetation and trees.
(h) Screen elements such as mechanical and electrical equipment from view.

Finding: The proposed tower is located on a small rise in this area of the site, to achieve additional natural height without building it, and among a grove of existing mature trees. In this way, the siting of the tower minimizes disruption and takes into consideration natural topography.

By tucking the tower into a stand of existing trees, the base of the facility will be screened from the right of way and other surrounding properties. (This will be made even more effective if the proposed variance for fence setbacks from rights of way is approved.) The base of the WCF includes a small equipment shack that will be concealed by a sight-obscuring safety fence. In addition, natural topography and existing vegetation will largely obscure these elements of the WCF from view.
(i) Locate a wireless communication facility attached to existing rooftop mechanical equipment before placement on the exterior wall of a building.
(j) Co-locate wireless communication facility or attached facility.

Finding: The proposed WCF is required, for functional reasons, to be exclusively dedicated for PGE use and 140 feet tall. The rationale for the height of the structure is so that it can communicate directly with other PGE structures in the region. The type of signal broadcast and received by the WCP needs a direct line of sight to maintain this constant connection. As such, it cannot be co-located on another structure or attached to the roof of the new operations center building.
(k) Construct wireless communication support structures at the minimum height necessary to serve the operational requirements of the system.

Finding: The proposed tower is 140 feet tall, which is the minimum height necessary to create a line of sight to other PGE communications towers, which is necessary to meet
the operational requirements of the system. The attached radio frequency report explains the technical details and supports the height variance.
(l) Separate wireless communication support structures from each other.

Finding: The proposed communication support structure is 4,600 feet from the nearest WCF in Tualatin. That tower is noted on Figure 2 along with the closest WCF overall, which is outside city limits in Sherwood. As noted, the proposed communication facility must be exclusive to PGE for security purposes and cannot co-locate.


Figure 2. Nearest WCFs from proposed tower

## Section 73F. 020 - Maximum Height.

The maximum height for wireless communication facilities, support structures, and antennas is as follows:

| PLANNING DISTRICT | MAXIMUM STRUCTURE HEIGHT |
| :---: | :---: |
| (18) Manufacturing Business Park (MBP) | - 65 feet <br> - 85 feet if all yards adjacent to the structure are not less than a distance equal to one and one-half times the height of the structure <br> - 28 feet if a property line, street, or alley separates MBP land from land in a residential district |

Finding: The proposed tower will be 140 feet tall. As described, the reason for this height is that the antenna must communicate directly and without interruption with other PGE communication facilities in the region. The type of signal broadcast and received by the WCF needs a direct line of sight to maintain this constant connection. Because the operational requirements of the tower require that it be taller than the maximum height allowed in the district, a variance is requested in findings below.

## Section 73F. 030 - Site Design Standards.

(1) All Wireless Communication Facilities must comply with the following minimum design standards:
(a) A wireless communication facility attached must not be attached to buildings which are designed solely for single family residential use;

Finding: The proposed WCF is not attached to any building. This standard does not apply.
(b) Mechanical and electrical equipment and the bottom six feet of the support structure for a wireless communication facility must be screened from the public right-of-way and abutting property by the use of a minimum six foot tall security fence or wall consisting of chain link fencing with vinyl slats, solid wood fencing, concrete masonry unit block, or brick;

Finding: The base of the tower, including the mechanical and electrical equipment next to the antenna support structure, will be within a ten-foot tall, sight-obscuring safety fence. This fence will be chain link with vinyl privacy slats. In addition, the structure will be screened from any adjacent property by natural vegetation (i.e., mature trees), proposed vegetation, distance, and a security perimeter fence.
(c) Equipment shelters, buildings or cabinets to house radio electronics equipment must be concealed, camouflaged, screened by vegetative, or placed underground.

Finding: The proposed WCF has a small shed for electronic equipment associated with the tower and antenna, as shown on project plans. This building will be concealed by the privacy fence, existing vegetation, and the site perimeter security fence.
(d) A wireless communication facility must utilize existing site conditions such as surrounding vegetation and trees;

Finding: One of the main locational criteria for siting the proposed WCF, in addition to getting the required minimum height to maintain communication with other PGE facilities, was to minimize its impact on the landscape and on surrounding properties. Fortunately, one of the high elevation points on the site is within a small clearing inside a larger grove of mature trees on the property's west side. This has enabled the WCF to utilize existing site conditions, specifically the surrounding vegetation and trees.
(e) A wireless communication facility support structure must be constructed to the minimum height necessary to serve the operational requirements of the facility;

Finding: The proposed support structure for the WCF is the minimum height necessary to serve the operational requirements of the facility. The radio frequency report included with the application materials explains the need for line-of-sight capability to other PGE microwave towers in the region. A shorter structure would simply not allow the necessary always-on microwave radio connection to other facilities, which is the baseline operational requirement. In order to have this functionality, it was determined that the support structure for the microwave radio antennae needed to be 140 feet tall.
(f) A wireless communication facility must be designed to allow co-location of facilities;

Finding: In theory, the support structure for the PGE communications antennae is designed to allow co-location. However, in practice, the tower is inside a secure perimeter fence for protection of critical infrastructure. For this reason, other private companies would be permitted access to the tower.
(g) Wireless communication support structure towers must be used in all zones, except when colocating on an existing structure.

Finding: The proposal is for a self-supporting communications tower.
(h) Antennas and platforms must be designed to minimize their size and appearance to surrounding development;

Finding: One of the main locational criteria for siting the proposed WCF, in addition to getting the required minimum height to maintain communication with other PGE facilities, was to minimize its visual impact on surrounding properties. The primary
method for doing so is siting, i.e., placing the tower within a small clearing inside a larger grove of mature trees. This also makes the platform effectively invisible to any surrounding property. The dish antennae are relatively small and will only be visible from a great distance, as the nearest developed property is about 750 horizontal feet away and the antenna are more than 100 feet in the air. In these ways, the antennae and platform are not visually impactful to neighbors.
(i) Obsolete or unused wireless communication support structures and associated equipment and antennas must be removed within 12 months of cessation of operations at a site;

Finding: The support structure will be removed if the operations at the site ever cease, which is not anticipated and would only be in the far distant future.
(j) No new wireless communication support structure is permitted unless the applicant submits a co-location report showing whether or not any existing tower or support structure within onehalf mile of the proposed site can accommodate the applicant's proposed antennae. The report must address the following:
(i) Do existing towers or support structures, or approved but not yet constructed towers or support structures, located within the geographic area meet the applicant engineering requirements;
(ii) Are existing towers or support structures of sufficient height to meet the applicant's engineering requirements;
(iii) Do existing towers or support structures have sufficient structural strength to support the applicants proposed antennae and related equipment;
(iv) Would the applicant's proposed antennae cause electromagnetic interference with the antennae on the existing tower or support structure, or would existing antennae cause interference with the applicant's proposed antennae; and
(v) Are there other limiting factors that render existing towers and support structures unsuitable or unavailable.

Finding: Figure 2 shows the closest permitted WCF to the proposed tower, including a 1,500 foot ring, which is addressed in subsection (k) below. The other tower is 2,800 feet from the proposed tower site, in Sherwood. The closest tower that is inside Tualatin city limits, according to city maps, is 4,700 feet away, to the east, in an industrial area off SW $105^{\text {th }}$ Avenue.

Because there are no towers within the stated distance where PGE could co-locate its tower, the listed elements of a co-location report do not apply. In any case, as previously explained, the required height and strict security needs of the proposed tower make co-locating on other structures impossible consistent with CIP-14 requirements.
(k) The minimum distance between wireless communication support structure towers is 1,500 feet. Separation must be measured by following a straight line from one wireless communication
support structure tower to the next. For purposes of this section, a wireless communication support structure tower includes wireless communication support structure tower for which the City has issued a development permit, or for which an application has been filed and not denied.

Finding: The next closest WCF in Tualatin is 2,800 feet from the proposed tower, in Sherwood. This exceeds the minimum 1,500 foot distance required by this standard. The closest tower inside Tualatin city limits is even farther, 4,700 feet to the east.
(2) In addition to complying with subsection (1), all Wireless Communication Facilities Attached must comply with the following:
(a) Wireless communication facility attached antennas must use existing rooftop mechanical equipment, and only if not practicable be placed on the exterior wall of a building; and (b) Wireless communication facility attached antennas must be painted to match the color of the mechanical screen wall or building to which it is attached.

Finding: The proposed facility is a stand-alone communications tower, and not attached to a building. Consequently, it is not a "Wireless Communication Facilities Attached," and this standard does not apply.

## Section 73F. 040 - Setback Requirements.

Setbacks for all Wireless Communication Facilities are determined through the Architectural Review process, and must be consistent with the following:
(1) The minimum setback must be 5 feet, except as otherwise specified in (2), below;
(2) The minimum setback from an RL zone or from an RML zone with an approved small lot subdivision must be determined as follows:[...]
(3) In making a determination of compliance with the setback requirements, the City Manager must consider the following factors:
(a) If the abutting property is in the Low Density Residential (RL) Zone or in the Medium-Low Density Residential (RML) Zone with an approved small lot subdivision, and if natural vegetation, such as evergreen trees, does not exist to act as a screen, then a greater setback than the minimum required may be appropriate. If such natural vegetation exists, then the minimum required setback may be appropriate;
(b) If the abutting property is in the Low Density Residential (RL) Zone or in the Medium-Low Density Residential (RML) Zone with an approved small lot subdivision, and it is vacant or its use is a single family dwelling, then a greater setback than the minimum required may be appropriate. If the use is not a single family dwelling, then the minimum required setback may be appropriate; and
(c) If the abutting property is in the Low Residential Density (RL) Zone or in the Medium-Low Density Residential (RML) Zone with an approved small lot subdivision, and it is vacant or its use is a single family dwelling and it is at a lower elevation than the subject property, then a greater setback than the minimum required may be appropriate.

Finding: The proposed tower is set back 160 feet from the nearest property line, which will be the edge of the SW Blake Street ROW. It will be set back 260 feet from the edge
of the SW $124^{\text {th }}$ Avenue ROW. These setbacks far exceed the applicable five foot minimum listed in subsection (1). The other subsections do not apply, because the property does not abut any land that is zoned RL or RML.

Section 73F.050. Variances. Variances to the provisions of this Chapter are as provided in TDC 33.120 .

Finding: No variances are required to this chapter. Variances to two base zone development standards, for tower height and a fence setback, are requested below.

## Architectural Review Summary

The proposed building and site design creates a secure and reliable facility that enables current operations and supports a modern, collaborative, and flexible work environment. The unique security needs of the facility are accommodated, and the site elements include all necessary operational functions into a fully integrated operations center. The architectural, landscaping, and site orientation choices provide a lowprofile, visually appealing presence along abutting rights of way and as viewed from surrounding properties. Overall, the site and its building elements are functional, safe, and attractive.

1433 SW Sixth Avenue

(503)646-4444

OWNERSHIP AND ENCUMBRANCES REPORT WITH GENERAL INDEX LIENS
Informational Report of Ownership and Monetary and Non-Monetary Encumbrances
$\begin{array}{ll}\text { To ("Customer"): } & \begin{array}{l}\text { Portland General Electric Company } \\ 121 \text { SW Salmon St. } \\ \text { Portland, OR } 97204\end{array} \\ & \\ \text { Customer Ref.: } & \begin{array}{l}12150 \text { SW Tualatin Sherwood Road } \\ \text { Order No.: }\end{array} \\ \begin{array}{l}\text { 45141904212 } \\ \text { Effective Date: } \\ \text { Charge: }\end{array} & \begin{array}{l}\text { March 20, 2019 at 08:00 AM } \\ \$ 350.00\end{array}\end{array}$
The information contained in this report is furnished by Fidelity National Title Company of Oregon (the "Company") as a real property information service based on the records and indices maintained by the Company for the county identified below. THIS IS NOT TITLE INSURANCE OR A PRELIMINARY TITLE REPORT FOR, OR COMMITMENT FOR, TITLE INSURANCE. No examination has been made of the title to the herein described property, other than as specifically set forth herein. Liability for any loss arising from errors and/or omissions is limited to the lesser of the charge or the actual loss, and the Company will have no greater liability by reason of this report. THIS REPORT IS SUBJECT TO THE LIMITATIONS OF LIABILITY STATED BELOW, WHICH LIMITATIONS OF LIABILITY ARE A PART OF THIS REPORT.

## THIS REPORT INCLUDES MONETARY AND NON-MONETARY ENCUMBRANCES.

## Part One - Ownership and Property Description

Owner. The apparent vested owner of property ("the Property") as of the Effective Date is:
Portland General Electric Company, an Oregon corporation
Premises. The Property is:
(a) Street Address:

12150 SW Tualatin Sherwood Road, Tualatin, OR 97062
(b) Legal Description:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

## Part Two - Encumbrances

Encumbrances. As of the Effective Date, the Property appears subject to the following monetary and non-monetary encumbrances of record, not necessarily listed in order of priority, including liens specific to the subject property and general index liens (liens that are not property specific but affect any real property of the named person in the same county):

## EXCEPTIONS

1. As disclosed by the assessment and tax roll, the premises herein have been specially assessed for farm use. If the land becomes disqualified for this special assessment under the statutes, an additional tax, plus interest and penalty, will be levied for the number of years in which this special assessment was in effect for the land.

Tax Identification: R546822
Affects: Parcel I and III
Tax Identification: R546840
Affects: Parcel II

## THE FOLLOWING EXCEPTIONS AFFECT PARCEL I:

2. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

| Entitled: | Dedication Deed |
| :--- | :--- |
| In favor of: | Washington County |
| Purpose: | Permanent Drainage |
| Recording Date: | January 8, 1993 |
| Recording No: | 93001500 |
| Affects: | North line |

3. Access Agreement including the terms and provisions thereof

Executed by: Washington County and Earl J. and Loris D. Itel
Recording Date: January 8, 1993
Recording No.: 93001502
Affects: As described therein

## THE FOLLOWING EXCEPTIONS AFFECT PARCEL II:

4. Easement(s) for the purpose(s) shown below and rights incidental thereto as reserved in a document;

Reserved by: Raymond A. Stevens and Celia A. Stevens
Purpose: Maintain and service 8 inch tile line for drainage
Recording Date: November 23, 1959
Recording No: Book 424 Page 648
Affects: Northeast portion exact location not stated however
5. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

Entitled: Dedication Deed
In favor of: Washington County
Purpose: Permanent Drainage
Recording Date: January 8, 1993

Recording No: 93001500
Affects: North line
6. Access Agreement including the terms and provisions thereof

Executed by: Washington County and Earl J. and Loris D. Itel
Recording Date: January 8, 1993
Recording No.: 93001502
Affects: As described therein
7. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Washington County
Purpose: Permanent slope and drainage
Recording Date: August 14, 2015
Recording No: 2015-069441
Affects: West and Northwesterly portions as described therein

## THE FOLLOWING EXCEPTIONS AFFECT ALL PARCELS:

8. Rights of the public to any portion of the Land lying within the area commonly known as streets, roads and highways.
9. Waiver of Rights and Remedies, including the terms and provisions thereof :

Purpose: Measure 37 \& 49 Waiver of rights and Remedies
Recording Date: December 19, 2018
Recording No.: 2018-084997
10. Mortgage Notice, including the terms and provisions thereof

Recording Date: February 11, 2019
Recording No: 2019-008401

Note: Property Taxes are paid for the fiscal year as follows:
Fiscal Year: 2018-2019
Amount: \$3,352.26
Levy Code: 088.13
Account No.: R546822
Map No.: 2S127C-00500
Affects: Parcel I and III
Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

Note: Property Taxes are paid for the fiscal year as follows:

| Fiscal Year: | $2018-2019$ |
| :--- | :--- |
| Amount: | $\$ 126.06$ |
| Levy Code: | 088.13 |
| Account No.: | R546840 |

Fidelity National Title Company of Oregon
Order No. 45141904212

Map No.: 2S127C-00701
Affects: Parcel II
Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

## End of Reported Information

There will be additional charges for additional information or copies. For questions or additional requests, contact:
Kim Alf
503-469-4156
Kim.Alf@TitleGroup.FNTG.com
Fidelity National Title Company of Oregon 1433 SW Sixth Avenue
Portland, OR 97201

## EXHIBIT "A"

Legal Description

## PARCEL I:

A tract of land Situated in the West one half of Section 27, Township 2 South, Range 1 West, Willamette Meridian, Washington County, Oregon, and being described as follows:

Beginning at a point 975.46 feet East of the West quarter section corner between Sections 27 and 28, Township 2 South, Range 1 West, Willamette Meridian, thence North $89^{\circ} 47^{\prime}$ East along the East-West center line of said Section 27, a distance of 326.99 feet to a point; thence North $0^{\circ} 03^{\prime}$ West 689.7 feet to a point, thence South $85^{\circ}$ 20' West to a point directly North of the beginning point hereof; thence South 662.62 feet to the place of beginning;

ALSO: Beginning at a point 462.3 feet East of the quarter section corner between Sections 2 and 28, Township 2 South, Range 1 West, Willamette Meridian, and running thence South 1315.38 feet; thence North $89^{\circ} 47^{\prime}$ East 513.16 feet; thence North 1978.0 feet to the center of the county road; thence South $85^{\circ} 20^{\prime}$ West 179.0 feet, thence South $82^{\circ} 04^{\prime}$ West, 341.6 feet; thence South 601.11 feet to the place of beginning.

PARCEL II:
A tract of land Situated in the West one half of Section 27, Township 2 South, Range 1 West, Willamette Meridian, Washington County, Oregon, and being described as follows:

Commencing at the quarter section corner between Sections 27 and 28, Township 2 South, Range 1 West of the Willamette Meridian, Washington County, Oregon; running thence South 1315.38 feet; thence North $89^{\circ} 47$ ' East, 462.3 feet; thence North 1590.39 feet to an iron which bears South $89^{\circ} 59^{\prime}$ East, 462.2 feet and North 275.0 feet from the West quarter corner of said Section 27; thence West, 150.75 feet to an iron; thence North parallel with the East line of the tract conveyed to R.A. Stevens and Celia A. Stevens, husband and wife, by deed recorded September 3, 1948 in Book 288, Page 561, 276.6 feet to an iron; thence continuing North 28.5 feet, more or less, to the North line of said Stevens tract; thence South $82^{\circ} 04^{\prime}$ 'West, 313.3 feet to the Northwest corner of said Stevens tract; thence South, 537.25 feet to the place of beginning;
EXCEPTING THEREFROM that portion conveyed to Washington County for right of way purposes in Dedication Deed recorded August 14, 2015 as Recorder's No. 2015-069441, Washington County Deed Records.

PARCEL III:
A tract of land Situated in the West one half of Section 27, Township 2 South, Range 1 West, Willamette Meridian, Washington County, Oregon, and being described as follows:

Beginning at a point 975.46 feet East of the quarter section corner between Sections 27 and 28, Township 2 South, Range 1 West of the Willamette Meridian, Washington County, Oregon; thence South 1315.38 feet; thence North $89^{\circ} 47^{\prime}$ East 1 rod; thence North to the County Road; thence Northwesterly along the County Road to a point due North of the beginning point; thence South 662.62 feet to the place of beginning;
EXCEPTING THEREFROM that portion described as follows:
Beginning at a point 975.46 feet East of the West quarter section corner between Sections 27 and 28, Township 2 South, Range 1 West, Willamette Meridian, thence North $89^{\circ} 47^{\prime}$ East along the East-West center line of said Section 27, a distance of 326.99 feet to a point; thence North $0^{\circ} 03^{\prime}$ West 689.7 feet to a point, thence South $85^{\circ}$ 20' West to a point directly North of the beginning point hereof; thence South 662.62 feet to the place of beginning.

## LIMITATIONS OF LIABILITY

"CUSTOMER" REFERS TO THE RECIPIENT OF THIS REPORT.
CUSTOMER EXPRESSLY AGREES AND ACKNOWLEDGES THAT IT IS EXTREMELY DIFFICULT, IF NOT IMPOSSIBLE, TO DETERMINE THE EXTENT OF LOSS WHICH COULD ARISE FROM ERRORS OR OMISSIONS IN, OR THE COMPANY'S NEGLIGENCE IN PRODUCING, THE REQUESTED REPORT, HEREIN "THE REPORT." CUSTOMER RECOGNIZES THAT THE FEE CHARGED IS NOMINAL IN RELATION TO THE POTENTIAL LIABILITY WHICH COULD ARISE FROM SUCH ERRORS OR OMISSIONS OR NEGLIGENCE. THEREFORE, CUSTOMER UNDERSTANDS THAT THE COMPANY IS NOT WILLING TO PROCEED IN THE PREPARATION AND ISSUANCE OF THE REPORT UNLESS THE COMPANY'S LIABILITY IS STRICTLY LIMITED. CUSTOMER AGREES WITH THE PROPRIETY OF SUCH LIMITATION AND AGREES TO BE BOUND BY ITS TERMS
THE LIMITATIONS ARE AS FOLLOWS AND THE LIMITATIONS WILL SURVIVE THE CONTRACT:
ONLY MATTERS IDENTIFIED IN THIS REPORT AS THE SUBJECT OF THE REPORT ARE WITHIN ITS SCOPE. ALL OTHER MATTERS ARE OUTSIDE THE SCOPE OF THE REPORT.

CUSTOMER AGREES, AS PART OF THE CONSIDERATION FOR THE ISSUANCE OF THE REPORT AND TO THE FULLEST EXTENT PERMITTED BY LAW, TO LIMIT THE LIABILITY OF THE COMPANY, ITS LICENSORS, AGENTS, SUPPLIERS, RESELLERS, SERVICE PROVIDERS, CONTENT PROVIDERS AND ALL OTHER SUBSCRIBERS OR SUPPLIERS, SUBSIDIARIES, AFFILIATES, EMPLOYEES, AND SUBCONTRACTORS FOR ANY AND ALL CLAIMS, LIABILITIES, CAUSES OF ACTION, LOSSES, COSTS, DAMAGES AND EXPENSES OF ANY NATURE WHATSOEVER, INCLUDING ATTORNEY'S FEES, HOWEVER ALLEGED OR ARISING, INCLUDING BUT NOT LIMITED TO THOSE ARISING FROM BREACH OF CONTRACT, NEGLIGENCE, THE COMPANY'S OWN FAULT AND/OR NEGLIGENCE, ERRORS, OMISSIONS, STRICT LIABILITY, BREACH OF WARRANTY, EQUITY, THE COMMON LAW, STATUTE OR ANY OTHER THEORY OF RECOVERY, OR FROM ANY PERSON'S USE, MISUSE, OR INABILITY TO USE THE REPORT OR ANY OF THE MATERIALS CONTAINED THEREIN OR PRODUCED, SO THAT THE TOTAL AGGREGATE LIABILITY OF THE COMPANY AND ITS AGENTS, SUBSIDIARIES, AFFILIATES, EMPLOYEES, AND SUBCONTRACTORS SHALL NOT IN ANY EVENT EXCEED THE COMPANY'S TOTAL FEE FOR THE REPORT.

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THE REPORT IS LIMITED IN SCOPE AND IS NOT AN ABSTRACT OF TITLE, TITLE OPINION, PRELIMINARY TITLE REPORT, TITLE REPORT, COMMITMENT TO ISSUE TITLE INSURANCE, OR A TITLE POLICY, AND SHOULD NOT BE RELIED UPON AS SUCH. THE REPORT DOES NOT PROVIDE OR OFFER ANY TITLE INSURANCE, LIABILITY COVERAGE OR ERRORS AND OMISSIONS COVERAGE. THE REPORT IS NOT TO BE RELIED UPON AS A REPRESENTATION OF THE STATUS OF TITLE TO THE PROPERTY. THE COMPANY MAKES NO REPRESENTATIONS AS TO THE REPORT'S ACCURACY, DISCLAIMS ANY WARRANTY AS TO THE REPORT, ASSUMES NO DUTIES TO CUSTOMER, DOES NOT INTEND FOR CUSTOMER TO RELY ON THE REPORT, AND ASSUMES NO LIABILITY FOR ANY LOSS OCCURRING BY REASON OF RELIANCE ON THE REPORT OR OTHERWISE.

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NO THIRD PARTY IS PERMITTED TO USE OR RELY UPON THE INFORMATION SET FORTH IN THE REPORT, AND NO LIABILITY TO ANY THIRD PARTY IS UNDERTAKEN BY THE COMPANY.
CUSTOMER AGREES THAT, TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT WILL THE COMPANY, ITS LICENSORS, AGENTS, SUPPLIERS, RESELLERS, SERVICE PROVIDERS, CONTENT PROVIDERS, AND ALL OTHER SUBSCRIBERS OR SUPPLIERS, SUBSIDIARIES, AFFILIATES, EMPLOYEES AND SUBCONTRACTORS BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, PUNITIVE, EXEMPLARY, OR SPECIAL DAMAGES, OR LOSS OF PROFITS, REVENUE, INCOME, SAVINGS, DATA, BUSINESS, OPPORTUNITY, OR GOODWILL, PAIN AND SUFFERING, EMOTIONAL DISTRESS, NON-OPERATION OR INCREASED EXPENSE OF OPERATION, BUSINESS INTERRUPTION OR DELAY, COST OF CAPITAL, OR COST OF REPLACEMENT PRODUCTS OR SERVICES, REGARDLESS OF WHETHER SUCH LIABILITY IS BASED ON BREACH OF CONTRACT, TORT, NEGLIGENCE, THE COMPANY'S OWN FAULT AND/OR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTIES, FAILURE OF ESSENTIAL PURPOSE, OR OTHERWISE AND WHETHER CAUSED BY NEGLIGENCE, ERRORS, OMISSIONS, STRICT LIABILITY, BREACH OF CONTRACT, BREACH OF WARRANTY, THE COMPANY'S OWN FAULT AND/OR NEGLIGENCE OR ANY OTHER CAUSE WHATSOEVER, AND EVEN IF THE COMPANY has been advised of the likelihood of such damages or knew or should have known of THE POSSIBILITY FOR SUCH DAMAGES.

END OF THE LIMITATIONS OF LIABILITY

March 4, 2019

## Re: Portland General Electric Proposed Integrated Operations Center and Communications Tower Neighborhood Meeting

Dear Interested Party,
You are invited to attend a neighborhood meeting on Wednesday, March 20, at 6:30 pm, at the Juanita Pohl Center located at 8513 SW Tualatin Road in Tualatin.

The purpose of this meeting is to provide information about a new Portland General Electric Integrated Operations Center proposed at 12150 SW Tualatin Sherwood Road. The property spans Tax Map 2S1 27C, Tax Lots 500 and 701. Please view the attached conceptual site plans and vicinity map for reference.

Portland General Electric is a fully integrated energy company based in Portland, Oregon, serving approximately 885,000 customers in 51 cities. For 130 years, PGE has been delivering safe, affordable and reliable electricity to Oregonians. With approximately 2,900 employees across the state, PGE is helping its customers and the communities it serves build a clean energy future. For more information, visit PortlandGeneral.com/CleanVision.

As part of ongoing system investments to improve reliability and resiliency and to protect infrastructure against natural disasters or other hazards, PGE is evaluating plans for the construction of an Integrated Operations Center in Tualatin, which will be presented to the company's board of directors for approval in the summer of 2019. The center will co-locate technical staff conducting 24/7 functions relating to grid and power supply operations as well as physical and cyber security. The facility will also contain the company's Emergency Operations Center, which is activated when storms or other large-scale events disrupt PGE's normal operations. PGE's corporate headquarters and primary administrative offices in downtown Portland will not be affected.

Depending on the configuration of final, approved plans, the Integrated Operations Center will be a 90,000 to 130,000 square-foot office facility staffed with approximately 200 employees. The proposed construction will be located on a 43-acre site and includes a stand-alone communications tower. The facility will have secure access from SW $124^{\text {th }}$ Avenue, with secondary secure access from $120^{0^{\text {th }} \text { Avenue. }}$

If you have any questions, please feel free to contact me at 503-827-4422:


## Enclosures: Conceptual Site Plan Vicinity Map

Winterbrook Planning

# NEIGHBORHOOD/DEVELOPER MEETING AFFIDAVIT OF MAILING 

## STATE OF OREGON

COUNTY OF WASHINGTON


That on the 3-d day of March , 2019, I served upon the persons shown on Exhibit " A ," attached hereto and by this reference incorporated herein, a copy of the Notice of Neighborhood/Developer meeting marked Exhibit "B," attached hereto and by this reference incorporated herein, by mailing to them a true and correct copy of the original hereof. I further certify that the addresses shown on said Exhibit " A " are their regular addresses as determined from the books and records of the Washington County and/or Clackamas County Departments of Assessment and Taxation Tax Rolls, and that said envelopes were placed in the United States Mail with postage fully prepared thereon.


SUBSCRIBED AND SWORN to before me this
 day of $\qquad$ 209.


RE: $\qquad$

## NEIGHBORHOOD / DEVELOPER MEETING CERTIFICATION OF SIGN POSTING



In addition to the requirements of TDC 31.064(2) quoted earlier in the packet, the $18^{n} \times 24^{\prime \prime}$ sign that the applicant provides must display the meeting date, time, and address and a contact phone number. The block around the word "NOTICE" must remain orange composed of the RGB color values Red 254, Green 127, and Blue 0. Additionally, the potential applicant must provide a flier (or flyer) box on or near the sign and fill the box with brochures reiterating the meeting info and summarizing info about the potential project, including mention of anticipated land use applications). Staff has a Microsoft PowerPoint 2007 template of this sign design available through the Planning Division homepage at < www.tualatinoregon.gov/planning/land-use-application-sign-templates >.

As the applicant for the
hereby certify that on this day, $\qquad$ signs) was/were posted on the
subject property in accordance with the requirements of the Tualatin Development Code and the Community Development Department - Planning Division.


Memorandum
To: File
From: Jaime Crawford, Assistant Planner
Date: $\quad$ March 21, 2019
Re: PGE Integrated Operations Center and Wireless Communications Tower - Neighborhood Meeting

This memorandum summarizes the neighborhood meeting process and results for the proposed development at 12150 SW Tualatin Sherwood Road, Tualatin OR 97062

## Process and Timeline

- On February $13^{\text {th }}, 2019$, a pre-application conference was held with the Tualatin Planning Department. A consolidated application process was outlined by staff. The proposed process includes a track for a Type III Architectural Review and a track for both a Conditional Use and two proposed Variances. Staff determined that one neighborhood meeting was enough to satisfy this application.
- On March $4^{\text {th }}, 2019$, a letter was sent to invite community stakeholders to a neighborhood meeting about the proposed development. Property owners within 1,000 feet were sent notice, and all Community Involvement Organization heads were also invited to attend. In total, 37 mailed invitations were sent ( 31 property owners; 6 CIO heads).
- On March $4^{\text {th }}, 2019$, an email invitation was sent to the City of Tualatin detailing the proposed project and information about the upcoming neighborhood meeting. All contacts from the most recent CIO list were included in this email.
- On March $6^{\text {th }}, 2019$, neighborhood meeting signs - using the city's subscripted template - were posted on the site of the proposed Integrated Operations Center and Wireless Communications Tower.
- On March $20^{\text {th }}, 2019$, a neighborhood meeting was held in a community classroom of the Juanita Pohl Center located at 8513 SW Tualatin Road. The meeting was scheduled at 6:30 and lasted until around 7pm. Meeting details are included in the section below.

[^1]
## Portland General Electric Integrated Operations Center and Wireless Communications Tower - Neighborhood Meeting

On March 20 th 2019 , representatives from PGE, SERA Architects, and Winterbrook Planning met at the Juanita Pohl Center to provide information to the public on the proposal. Winterbrook introduced the proposal and detailed the land review process that led to the neighborhood meeting and the processes that would continue after. Site design and 3D renderings of the proposed Integrated Operations Center were presented by SERA Architects. PGE explained in more detail the purpose, objectives, and everyday function of the proposal. Below is the list of attendees and a summary transcript of the questions and comments made during the meeting.

## Neighbors and Interested Citizens

- Tiffany Ingram: 15836 SW Madrona Ln, Sherwood 97140
- Dayne Ingram: 15836 SW Madrona Ln, Sherwood 97140
- Garren Ingram: 15836 SW Madrona Ln, Sherwood 97140

Applicant and Consultants

- Ray Payne - PGE
- Steve Carson - PGE
- Susan Hill-PGE
- Bill Poulos - SERA Architects
- Gauri Rajbaidya - SERA Architects
- Ben Schonberger - Winterbrook Planning
- Jaime Crawford - Winterbrook Planning

Questions and Comments

- Dayne asked what PGE was planning to do with the frontage along SW TualatinSherwood Rad.
- Gauri responded that PGE intended to landscape the area, but generally it will remain undeveloped.
- Dayne asked where the communications tower would be located.
- Gauri explained that it would be nestled in the grove of existing trees closer to the SW corner on site.
- Dayne asked some clarifying questions about the trees on-site and the location of parking for the facility.
- Gauri explained that an objective of the design was to preserve the existing trees. Parking is to be located adjacent the tree grove.
- Dayne asked about the exact square footage of the proposal.
- Gauri said the building would be 2 stories, with a total square footage between 108,000 and 110,000.
- Garren asked for some clarity on the building footprint size.
- Ben stated that it would be between 50,000 and 55,000.
- Garren asked if traffic was a consideration in this proposal.
- The consultants clarified that traffic studies are a required analysis for this proposal
- Susan and Ray explained that PGE employee shifts are varied (early morning, 12-hour, swing, etc.), and that the commute times would most likely be staggered.
- Susan and Ray also added that some PGE employees use alternative forms of transportation like biking.
- Garren asked for more detail on the helistop.
- Bill stated that it was emergency use, and the consultants generally stated that the stop would be used infrequently, and that no helicopter would be parked there in waiting.


## Summary

The meeting was attended by 3 interested community members that shared the same address on the sign-in sheet. Questions and comments were well received. All questions posed were given direct answers from the applicant and representatives. No major concerns or criticisms of the project arose during the meeting. Consultants concluded that additional notices will be mailed in correlation with the land use review process.

## CleanWater Services

Our commitment is clear.

This form and the attached conditions will serve as your Service Provider Letter in accordance with Clean Water Services Design and Construction Standards (R\&O 17-5).


Encroachments into Pre-Development Vegetated Corridor:

Type and location of Encroachment:
No Encroachments Proposed

Square Footage: 0 $\qquad$

Mitigation Requirements:


区
Conditions Attached
Development Figures Attached (5)
X Planting Plan Attached $\square$ Geotech Report Required
This Service Provider Letter does NOT eliminate the need to evaluate and protect water quality sensitive areas if they are subsequently discovered on your property.

## In order to comply with Clean Water Services water quality protection requirements the project must comply with the following conditions:

1. No structures, development, construction activities, gardens, lawns, application of chemicals, uncontained areas of hazardous materials as defined by Oregon Department of Environmental Quality, pet wastes, dumping of materials of any kind, or other activities shall be permitted within the sensitive area or Vegetated Corridor which may negatively impact water quality, except those allowed in R\&O 17-5, Chapter 3.
2. Prior to any site clearing, grading or construction the Vegetated Corridor and water quality sensitive areas shall be surveyed, staked, and temporarily fenced per approved plan. During construction the Vegetated Corridor shall remain fenced and undisturbed except as allowed by R\&O 17-5, Section 3.06.1 and per approved plans.
3. Prior to any activity within the sensitive area, the applicant shall gain authorization for the project from the Oregon Department of State Lands (DSL) and US Army Corps of Engineers (USACE). The applicant shall provide Clean Water Services or its designee (appropriate city) with copies of all DSL and USACE project authorization permits. No wetland or non-wetland impacts proposed for this project.
4. An approved Oregon Department of Forestry Notification is required for one or more trees harvested for sale, trade, or barter, on any non-federal lands within the State of Oregon.
5. Prior to ground disturbing activities, an erosion control permit is required. Appropriate Best Management Practices (BMP's) for Erosion Control, in accordance with Clean Water Services' Erosion Prevention and Sediment Control Planning and Design Manual, shall be used prior to, during, and following earth disturbing activities.
6. Prior to construction, a Stormwater Connection Permit from Clean Water Services or its designee is required pursuant to Ordinance 27, Section 4.B.
7. Activities located within the 100-year floodplain shall comply with R\&O 17-5, Section 5.10.
8. Removal of native, woody vegetation shall be limited to the greatest extent practicable.
9. The water quality swale and detention pond shall be planted with Clean Water Services approved native species, and designed to blend into the natural surroundings.
10. Should final development plans differ significantly from those submitted for review by Clean Water Services, the applicant shall provide updated drawings, and if necessary, obtain a revised Service Provider Letter.
11. The Vegetated Corridor width for sensitive areas within the project site shall be a minimum of 25 feet wide, as measured horizontally from the delineated boundary of the sensitive area.
12. For Vegetated Corridors up to 50 feet wide, the applicant shall enhance the entire Vegetated Corridor to meet or exceed good corridor condition as defined in R\&O 17-5, Section 3.14.2, Table 3-3.
13. Prior to any site clearing, grading or construction, the applicant shall provide Clean Water Services with a Vegetated Corridor enhancement/restoration plan. Enhancement/restoration of the Vegetated Corridor shall be provided in accordance with R\&O 17-5, Appendix A, and shall include planting specifications for all Vegetated Corridor, including any cleared areas larger than 25 square feet in Vegetated Corridor rated "'good.""
14. Prior to installation of plant materials, all invasive vegetation within the Vegetated Corridor shall be removed per methods described in Clean Water Services' Integrated Vegetation and Animal Management Guidance, 2003. During removal of invasive vegetation care shall be taken to minimize impacts to existing native tree and shrub species.
15. Clean Water Services shall be notified 72 hours prior to the start and completion of enhancement/restoration activities. Enhancement/restoration activities shall comply with the guidelines provided in Planting Requirements (R\&0 17-5, Appendix A).
16. Maintenance and monitoring requirements shall comply with R\&O 17-5, Section 2.12.2. If
level, the owner shall reinstall all deficient planting at the next appropriate planting opportunity and the two year maintenance period shall begin again from the date of replanting.
17. Performance assurances for the Vegetated Corridor shall comply with R\&O 17-5, Section 2.07.2, Table 2-1 and Section 2.11, Table 2-2.
18. Clean Water Services will require an easement over the water quality sensitive area and Vegetated Corridor conveying storm and surface water management to Clean Water Services or the City that would prevent the owner of the Vegetated Corridor from activities and uses inconsistent with the purpose of the corridor and any easements therein.
FINAL PLANS
19. Final construction plans shall include landscape plans. In the details section of the plans, a description of the methods for removal and control of exotic species, location, distribution, condition and size of plantings, existing plants and trees to be preserved, and installation methods for plant materials is required. Plantings shall be tagged for dormant season identification and shall remain on plant material after planting for monitoring purposes.
20. A Maintenance Plan shall be included on final plans including methods, responsible party contact information, and dates (minimum two times per year, by June 1 and September 30).
21. Final construction plans shall clearly depict the location and dimensions of the sensitive area and the Vegetated Corridor (indicating good, marginal, or degraded condition). Sensitive area boundaries shall be marked in the field.
22. Protection of the Vegetated Corridors and associated sensitive areas shall be provided by the installation of permanent fencing and signage between the development and the outer limits of the Vegetated Corridors. Fencing and signage details to be included on final construction plans.

## This Service Provider Letter is not valid unless CWS-approved site plan is attached.

Please call (503) 681-3653 with any questions.


Lindsey Obermiller<br>Environmental Plan Review

## Attachments (6)







| CWS FILE NO. $19-000069$ApprovedClean Water ServicesFOR ENYIRONMENTAL REVIEWBy $\quad 8 . \quad$ Date $4 / 17 / 2019$SPLATACHMENT 0 OF 6 |
| :---: |
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|  |  |
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|  |  |



## Irrigation and Maintenance

The project site will be designated by PGE's internal landscape management group as a Type A Landscape. Inspection and maintenance of PGE Type A Landscapes occurs at a minimum of once per month. During the early part of the establishment period the inspection frequency will be a minimum of once per week. Irrigation frequency shall be a minimum rate of one inch per week from June 15 through October 15 as needed. Irrigation during the establishment period shall be performed using a watering truck or temporary irrigation system. Irrigation is not expected to be necessary following the 2-year plant establishment period but will be available if necessary.

## REPUBLIC <br> SERVICES

4/05/2019

Matt Piccone
Sera Design

Re: PGE Building
Tualatin Sherwood $/ 124^{\text {th }}$ Ave.
Tualatin, OR 97062

Dear Matt,

Thank you, for sending us the preliminary site plan for this proposed construction in Tualatin.

My Company: Republic Services of Clackamas and Washington Counties has the franchise agreement to service this area with the City of Tualatin. We will provide complete commercial waste removal and recycling services as needed on a weekly basis for this location.

The design plans \& location of the trash and recycle enclosure positioned as proposed in your plan will allow adequate access, ample room for the containers occupying the enclosure and egress for the trucks servicing the location.

Thank you for your help and concerns for our services prior to this project being developed.

Sincerely,

Karl Bischoff
Operations Supervisor
Republic Services Inc.



March 28, 2019

Mr. Gus Fischer, AIA, Partner<br>Dreyfuss + Blackford Architecture<br>3540 Folsom Boulevard, Sacramento, CA 95816-6699<br>Subject: PGE Tualatin Phase 1 Tree Assessment<br>Dear Mr. Fischer,

As requested, I have completed my assessment of the Phase 1 portion of the PGE site. I assessed approximately 269 trees on the accompanying chart. The trees have all been tagged with metal tags, the numbers on the tags correspond to those on the survey and on the chart. My findings are as follows.

## OBSERVATIONS

The first phase of this project, shown in green on the conceptual site plan dated 2/21/19 contains slightly more than one third of the trees that have been surveyed. Data the City requires and my additional observations are included in the accompanying chart. The trees on the Phase 1 part of the site are located in the west central and south end of the site. Most of the site is open pasture or was recently graded during the construction of SW 124 street on the west border. Soil depth is shallow in the south quarter of the site. Rocks protrude over much of this area and indicate poor growing conditions for many trees. The best illustration of this can be seen in the road cut along SW $124^{\text {th }}$ Street south of Tualatin Sherwood Road where the shallow soil over fractured rock is exposed. The shallow soil and perched water tables in some areas are also noted in some of the soil test pits and bore holes performed by GRI.

Shallow soil results in challenging growing conditions for trees due to limited space for root systems and limited soil moisture retention during hot and dry summers. These conditions explain why the trees on the site are close in size. Young trees tend to grow rapidly as long as available rooting space, soil moisture and nutrients is not limited. Once the limited rooting space is used up, the insufficient amount of moisture and nutrients cause growth to stagnate and tree health to decline. Trees that were growing rapidly slow down and nearly stop growing. This is the issue for many of the young trees under 12 " in diameter that I assessed. Much of the area in the wooded portion of the southwest quarter of the site was rocky and the trees were in fair to poor health. Many had dead tops, which
was most likely due to Douglas Fir Bark Beetle infestation. This insect attacks trees in poor or declining health.

The rocky and drought stricken area in the southwest quarter is not conducive for Douglas Fir, Bigleaf Maple or other species that prefer deeper moisture retaining soils, but is conducive for Oregon White Oak, Hawthorn and Pacific Madrone that favor dryer soils. Shallow soil also means that most of the roots of trees and other woody plants are concentrated in the top few inches. The shallow dense roots are noted in the upper most soil profile in the soil test pits TP-5, 6, $7 \& 8$. Soil depth increases towards the north and east of the southwest quarter of the site.

## CONCLUSIONS AND RECOMMENDATIONS

Tree preservation is problematic in areas with shallow soils for several reasons. The existing conditions do not allow trees to achieve their expected sizes when their growth rate declines, stalls and they become highly vulnerable to insect attack and disease. In areas where trees are closely spaced, the competition for limited moisture and nutrients can accelerate declining health. Trees with shallow root systems are also highly vulnerable to damage from any disturbance during grading or excavation. Excavation related root loss can destabilize trees when such root loss is extensive and occurs less than 15 ' from the base of a tree. Destabilized trees can be hazards to pedestrians, vehicles or structures within their reach when they fall. Many trees in the southwest corner of the site are subject to inhospitable growing conditions and may have limited life spans.

Decisions on the retention or removal of such trees need to be made on a case by case basis. Any trees growing in shallow rocky soil that is in the area to be excavated or that will experience grading that disturbs the surface are likely to be candidates for removal. Those further to the north and east and in areas where soils are deeper and where the soil surface will be left undisturbed may be candidates for retention. Decisions on trees to be removed or retained that are outside buildings, paved and excavated areas will have to wait until more precise information becomes available as planning progresses.

Tree protection will be necessary for trees to remain. Once construction drawings are being prepared I can make more specific recommendations on the location of tree protection fencing. In areas outside construction limits that will remain undisturbed, erosion control fencing will provide adequate protection for trees. For trees planned to be retained within the construction limits and where construction activities will be underway, I recommend one of two fencing types. For any tree or group of trees that will remain undisturbed $15^{\prime}$ or more from the tree for the duration of construction, chain link fencing provides the best protection. For any tree or groups of trees where some disturbance will occur near or within the drip line(s) I recommend 4' or taller orange plastic construction fencing on metal " T " stakes. If the fencing is required to be temporarily removed for access or construction activities, any work within the tree protection area should be observed by the Project Arborist and the fencing should be replaced at the end of the workday.

# Once construction drawings are completed and trees to be retained have been identified, I can provide additional recommendations on tree protection and post construction tree care. 

I hope I have addressed all the issues you asked about, but if I omitted any information or if you have any questions please do not hesitate to contact me. Thank you.

Sincerely yours,


Stephen F. Goetz, Principal
American Society of Consulting Arborists Reg \#260
American Society of Landscape Architects, Oregon Lic. \#80
Society of American Foresters

## SG:mac


#### Abstract

ARBORIST DISCLOSURE STATEMENT: Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance their health and beauty and to attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist or to seek additional advice. Trees and other plant life are living, changing organisms affected by innumerable factors beyond our control. Trees fail in ways and because of conditions we do not fully understand. Arborists cannot detect or anticipate every condition or event that could possibly lead to the structural failure of a tree. Conditions are often hidden within the trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, for any specific period or when a tree or its parts may fail. Further, remedial treatments, as with any treatment or therapy, cannot be guaranteed. Treatment, pruning, bracing and removal of trees may involve considerations beyond the scope of the arborists skills and usual services such as the boundaries of properties, property ownership, site lines, neighbor disputes and agreements and other issues. Therefore, arborists cannot consider such issues unless complete and accurate information is disclosed in a timely fashion. Then, the arborist can be expected, reasonably, to rely upon the completeness and accuracy of the information provided. Trees can be managed but not controlled. To live near trees, regardless of their condition, is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees. HAZARD/HAZARD POTENTIAL: For the purposes of this evaluation and/report, hazard/hazard potential refers to a tree or tree part that presents a threat to humans, livestock, vehicles, structures, landscape features or other entity of civilization from uprooting, falling, breaking or growth development (e.g., roots). While all large landscape trees in proximity to such targets present some degree of hazard regardless of their condition, such inherent hazard is not intended as within this definition and its usage in this evaluation and report. INSPECTION LIMITATIONS: The inspection of these trees consisted solely of a visual inspection from the ground. While more thorough techniques are available for inspection and evaluation, they were neither requested nor considered necessary or appropriate at this time. As trees and other plant life are living, changing organisms effected by innumerable factors beyond our control, The Pacific Resources Group and it's personnel offer no guarantees, stated or implied, as to tree, plant or general landscape safety, health, condition or improvement, beyond that specifically stated in writing in accepted contracts.


PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10094 | $\begin{aligned} & 2,2,2,2,1.5, \\ & 1.5,1,1 \end{aligned}$ | Douglas Hawthorn | 5 | 5 | 5 | Small shrubby tree | Good | Moderate \& non-correctable defects |
| 10095 | $\begin{aligned} & \hline 2,2,1.5,1.5, \\ & 1,1,1,1,1,1 \\ & \hline \end{aligned}$ | Douglas Hawthorn | 5 | 3 | 5 | Small shrubby tree | Good | Moderate \& non-correctable defects |
| 10096 | 14" | Pacific Madrone | 5 | 3 | 5 | Full asymetric crown | Excellent | Moderate \& non-correctable defects |
| 10098 | 9" | Pacific Dogwood | 5 | 1 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 10099 | 14" | Pacific Madrone | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 10100 | 5" | Douglas Fir | 5 | 5 | 5 | Full crown' | Excellent | Sound - No obvious defects |
| 10207 | 14" | Pacific Madrone | 1 | 1 | 1 |  | $\begin{array}{\|l} \hline \text { Dead } \\ \text { Dying } \end{array}$ | Major defects or problems |
| 10208 | 10",11" | Pacific Dogwood | 5 | 5 | 5 | 2 stems at 2', full crown | Good | Moderate \& non-correctable defects |
| 10265 | 14" \& 16" | Pacific Madrone | 5 | 3 | 5 | Fine to medium deadwood in crown | Good | Moderate \& non-correctable defects |
| 10322 | 5" \& 7" | Douglas Fir | 5 | 5 | 5 |  | Good | Moderate \& non-correctable defects |
| 10342 | 12" \& 17" | Pacific Madrone | 5 | 3 | 5 |  | Good | Moderate \& non-correctable defects |
| 10343 | $22^{\prime \prime}$ | Pacific Madrone | 5 | 5 | 3 |  | Good | Few \& minor or correctable defects |
| 10980 | 7" | English Holly | 5 | 3 | 5 |  | Good | Few \& minor or correctable defects |
| 10985 | 19" | Pacific Madrone | 5 | 5 | 5 |  | Good | Moderate \& non-correctable defects |
| 11007 | 2-6" | Douglas Fir | 5 | 5 | 5 | 2 stems at ground form single full crown | Good | Moderate \& non-correctable defects |
| 11030 | 13" | Douglas Fir | 5 | 5 | 5 |  | Good | Moderate \& non-correctable defects |
| 12129 | 12" | English Holly | 5 | 5 | 5 | Full crown | Excellent | Sound - No obvious defects |
| 12134 | 8" | Holly | 5 | 5 | 5 | Full crown | Excellent | Sound - No obvious defects |
| 12147 | 22 " | Hawthorn species | 5 | 5 | 5 | 4 stems at 4.5', full crown | Good | Few \& minor or correctable defects |
| 12149 | 16" | Apple | 1 | 3 | 3 | Full crown, extensive internal decay \& hollow trunk. Potential Hazard. | Fair | Major defects or prob 145 |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12150 | 8", 6 " | English Holly | 5 | 3 | 5 | Partial crown due to crowding by building | Good | Moderate \& non-correctable defects |
| 12151 | 6,4,4,3,3,2" | Western Red Cedar | 5 | 5 | 5 | Shrubby tree with full dense crown due to shearing | Good | Moderate \& non-correctable defects |
| 12182 | $14^{\prime \prime}$ | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 14374 | $14 "$ | Douglas Fir | 5 | 3 | 5 |  | Good | Few \& minor or correctable defects |
| 14376 | 17" | Douglas Fir | 5 | 3 | 5 |  | Good | Few \& minor or correctable defects |
| 14378 | 18" | Douglas Fir | 5 | 3 | 1 |  | Fair | Moderate \& non-correctable defects |
| 14379 | 11" | Douglas Fir | 1 | 1 | 1 |  | Poor | Major defects or problems |
| 14380 | 20" | Pacific Madrone | 5 | 5 | 5 |  | Excellent | Few \& minor or correctable defects |
| 14382 | $9{ }^{\prime \prime}$ | Douglas Fir | 1 | 1 | 1 | Dead | Dead Dying | Hazard Remove |
| 14386 | 11" | Douglas Fir | 1 | 1 | 1 | Dead | Dead Dying | Hazard Remove |
| 14389 | $6 "$ | Douglas Fir | 1 | 1 | 1 |  | Dead Dying | Hazard Remove |
| 14390 | 17" | Douglas Fir | 5 | 5 | 5 |  | Good | Moderate \& non-correctable defects |
| 14392 | $16 "$ | Pacific Madrone | 5 | 3 | 3 |  | Good | Moderate \& non-correctable defects |
| 14393 | $6^{\prime \prime}$ | Douglas Fir | 5 | 3 | 1 |  | Poor | Major defects or problems |
| 14394 | 12 " \& 13" | Pacific Madrone | 5 | 1 | 5 |  | Good | Moderate \& non-correctable defects |
| 14397 | 8" | English Holly | 5 | 5 | 5 |  | Good | Few \& minor or correctable defects |
| 14767 | 13" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Sound, no obvious defects |
| 14777 | 14" | Bigleaf Maple | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 14778 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14779 | 6" | Douglas Fir | 5 | 3 | 3 | Partial crown due to crowding | Fair | Moderate \& non-corr <br> defects 146 |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14780 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 14781 | 8" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 14783 | 12" | Douglas Fir | 5 | 3 | 3 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14786 | 9" | Douglas Fir | 5 | 3 | 3 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14787 | 11" | Douglas Fir | 5 | 3 | 3 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 14788 | 9" | Douglas Fir | 3 | 3 | 3 | Partial crown due to crowding, cankers on trunk, Do Not Preserve | Fair | Major defects or problems |
| 14789 | 12" | Douglas Fir | 5 | 5 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14791 | 15" | Douglas Fir | 5 | 5 | 3 | Nearly full crown | Good | Few \& minor or correctable defects |
| 14796 | 13" | Douglas Fir | 5 | 3 | 3 | Partial crown due to crowding | Good | Few \& minor or correctable defects |
| 14797 | 15" | Douglas Fir | 5 | 1 | 3 | Partial crown due to crowding Topped at 35' and regrown | Good | Major defects or problems |
| 14798 | 7" | Douglas Fir | 5 | 3 | 3 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14799 | 6" | Douglas Fir | 5 | 3 | 3 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14807 | 11" | Douglas Fir | 5 | 5 | 3 | Full crown | Excellent | Sound, no obvious defects |
| 14858 | 13" | Douglas Fir | 5 | 3 | 3 | Full crown | Good | Few \& minor or correctable defects |
| 14861 | 11" | Pacific Madrone | 5 | 1 | 1 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14862 | 11" | Pacific Madrone | 5 | 1 | 1 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14875 | 9" | Douglas Fir | 5 | 5 | 3 | Full crown | Good | Sound, no obvious defects |
| 14876 | 7" | Douglas Fir | 5 | 3 | 3 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14878 | 6" | Douglas Fir | 3 | 1 | 1 | Partial crown due to crowding Top broken out at 15'. Poor specimen will not recover. Do Not Preserve. | Fair | Major defects or problems |
| 14879 | 13" | Pacific Madrone | 5 | 3 | 5 | Nearly full crown | Good | Moderate \& non-corr <br> defects 147 |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14880 | $21^{\prime \prime}$ | Douglas Fir | 5 | 5 | 5 | Full crown | Excellent | Few \& minor or correctable defects |
| 14884 | 8" | Oregon White Oak | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 14892 | 13" | Pacific Madrone | 5 | 5 | 5 |  | Excellent | Sound, no obvious defects |
| 14898 | $8^{\prime \prime}$ | Bigleaf Maple | 5 | 5 | 5 |  | Excellent | Sound, no obvious defects |
| 14901 | $8^{\prime \prime}$ \& 10" | Hooker Willow | 1 | 3 | 3 | Moderate amount of fine to medium deadwood in crown. Hollow cavity in lower trunk. | Fair | Moderate \& non-correctable defects |
| 14906 | $6{ }^{\prime \prime}$ \& 14" | Douglas Fir | 5 | 1 | 1 | Top 40\% of tree is dead. Poor specimen, Do Not Preserve | Fair | Major defects or problems |
| 14907 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14908 | 6" \& 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 14924 | 17" | Hooker Willow | 5 | 5 | 3 | Full crown, some medium deadwood and structural | Good | Moderate \& non-correctable defects |
| 14927 | $15^{\prime \prime}$ | Douglas Fir | 5 | 5 | 5 | Full crown | Excellent | Sound, no obvious defects |
| 14928 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 14929 | 18" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 14930 | 17" | Douglas Fir | 5 | 5 | 5 | Full crown | Excellent | Sound, no obvious defects |
| 14932 | 16" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Excellent | Few \& minor or correctable defects |
| 14933 | 24 | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Fair | Few \& minor or correctable defects |
| 15000 | 11" | Pacific Madrone | 5 | 3 | 3 |  | Good | Moderate \& non-correctable defects |
| 15001 | $21^{\prime \prime}$ | Oregon White Oak | 5 | 5 | 5 |  | Good | Few \& minor or correctable defects |
| 15002 | $6 "$ | Douglas Fir | 5 | 5 | 1 | Dead top | Dead Dying | Major defects or problems |
| 15003 | $6 "$ | Douglas Fir | 1 | 1 | 1 | Dead | Dead Dying | Major defects or problems |
| 15004 | 6" | Douglas Fir | 5 | 3 | 3 |  | $\begin{aligned} & \text { Dead } \\ & \text { Dying } \end{aligned}$ | Major defects or problems |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. <br> Inches | Species | Trunk <br> Condition | Crown <br> Devimpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15005 | 23" | Douglas Fir | 5 | 3 |  | Dying from top down and from branch tips in | Dead Dying | Major defects or problems |
| 15006 | 10" | Douglas Fir | 5 | 1 | 1 | Dying from top down and from branch tips in | Dead Dying | Major defects or problems |
| 15007 | 7" \& 16" | Pacific Madrone | 5 | 3 | 5 |  | Excellent | Few \& minor or correctable defects |
| 15008 | 6" \& 16" | Pacific Madrone | 5 | 3 | 5 |  | Excellent | Moderate \& non-correctable defects |
| 15009 | 8" | Pacific Madrone | Dead |  |  |  | $\begin{array}{\|l} \hline \begin{array}{l} \text { Dead } \\ \text { Dying } \end{array} \\ \hline \end{array}$ | Hazard |
| 15010 | 6" | Douglas Fir | 5 | 1 | 1 | Dying from top down and from branch tips in | $\begin{aligned} & \hline \begin{array}{l} \text { Dead } \\ \text { Dying } \end{array} \end{aligned}$ | Major defects or problems |
| 15011 | $6^{\prime \prime}$ | Douglas Fir | Dead |  |  |  | Dead Dying | Hazard |
| 15012 | $6^{\prime \prime}$ | Douglas Fir | 5 | 3 |  | Dying from top down and from branch tips in | Dead Dying | Major defects or problems |
| 15013 | 13" | Douglas Fir | 5 | 3 |  | Topped at $20{ }^{\prime}$ and regrown, in severe decline | Poor | Major defects or problems |
| 15014 | 8" | Douglas Fir | Dead |  |  | Dead stump | Dead Dying | Dead Stump |
| 15015 | 6" \& 7" | Common <br> Hawthorn | 5 | 3 | 1 |  | Poor | Moderate \& non-correctable defects |
| 15016 | 6" \& 13" | Pacific Madrone | 5 | 3 | 3 |  | Fair | Few \& minor or correctable defects |
| 15017 | 22" | Pacific Madrone | 5 | 5 | 5 |  | Excellent | Few \& minor or correctable defects |
| 15018 | 12" | Pacific Madrone | 5 | 3 | 5 |  | Good | Moderate \& non-correctable defects |
| 15019 | 16" | Pacific Madrone | 5 | 3 | 5 |  | Good | Moderate \& non-correctable defects |
| 15020 | 13" | Pacific Madrone | 5 | 3 | 5 |  | Good | Moderate \& non-correctable defects |
| 15021 | $9{ }^{\prime \prime}$ | Douglas Fir | 5 | 5 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 15022 | $9 "$ | Douglas Fir | 5 | 5 |  | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 15023 | 8" | Douglas Fir | 5 | 1 |  | Topped at 4' and regrown. Poor specimen, Do Not Preserve | Poor | Major defects or prob |
| 15024 | $6^{\prime \prime}$ | Douglas Fir | 5 | 1 |  | Dead top | Fair | Major defects or prob 149 |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. <br> Inches | Species | Trunk <br> Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15025 | 8" | Douglas Fir | 5 | 3 | 3 |  | Fair | Moderate \& non-correctable defects |
| 15026 | 9" | Douglas Fir | 5 | 1 | 1 | Dying from top down and from branch tips in | Dead Dying | Major defects or problems |
| 15027 | 14" | Douglas Fir | 5 | 3 | 1 | No annual twig growth, dying | Dead Dying | Major defects or problems |
| 15028 | 7" | Douglas Fir | 1 | 3 | 1 | Dead top | Dead Dying | Major defects or problems |
| 15029 | 15" | Douglas Fir | 5 | 5 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 15030 | 6" | Douglas Fir | 5 | 3 | 1 | Dying from top down and from branch tips in | $\begin{array}{\|l} \hline \text { Dead } \\ \text { Dying } \end{array}$ | Major defects or problems |
| 15031 | 12" | Douglas Fir | 5 | 3 | 3 | Topped at 12' and regrown. Poor specimen, Do Not Preserve | Fair | Major defects or problems |
| 15032 | 7" | Douglas Fir | Dead |  |  |  | Dead Dying | Hazard |
| 15033 | $16 "$ | Pacific Madrone | 5 | 5 | 5 | Swoop in trunk, some decay at base | Fair | Moderate \& non-correctable defects |
| 15034 | 18" | Pacific Madrone | 5 | 3 | 5 | Full narrow crown with some fine deadwood | Good | Few \& minor or correctable defects |
| 15035 | 6" | Douglas Hawthorn | 5 | 5 | 5 | Full crown with good annual twig growth | Good | Few \& minor or correctable defects |
| 15036 | 7" | Douglas Fir | 5 | 1 | 1 |  | Fair | Major defects or problems |
| 15037 | $16 "$ | Pacific Madrone | 5 | 3 | 1 | Dead top, moderate amount of deadwood in crown. Blight on foliage in parts of crown. | Fair | Moderate \& non-correctable defects |
| 15038 | 11" | Pacific Madrone | 5 | 1 | 1 | Dead top, moderate amount of deadwood in crown. Blight on foliage in parts of crown. | Fair | Moderate \& non-correctable defects |
| 15039 | 8" | Douglas Fir | 5 | 1 | 1 | Top dead, will not recover. Poor specimen, Do Not Preserve | Poor | Major defects or problems |
| 15040 | 7" | Douglas Fir | 5 | 1 | 1 | Top dead, will not recover. Poor specimen, Do Not Preserve | Dead Dying | Major defects or problems |
| 15041 | 7" | Douglas Fir | 5 | 1 | 1 | Top dead, will not recover. Poor specimen, Do Not Preserve | Poor | Major defects or problems |
| 15042 | 7" | Douglas Fir | 5 | 1 |  | Dying from top down and from branch tips in, yellowing foliage | Poor | Major defects or problems |
| 15338 | 14" | Pacific Madrone | 5 | 5 | 5 | Full crown, with swoop in trunk from $0^{\prime}$ to $7^{\prime}$ | Excellent | Moderate \& non-corrantobla <br> defects 150 |

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PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devimpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15341 | 13" | Douglas Fir | 5 | 5 | 5 | Full crown | Excellent | Sound - No obvious defects |
| 15342 | 13" | Douglas Fir | 5 | 5 | 5 | Full crown | Excellent | Sound - No obvious defects |
| 15346 | 11" | Douglas Fir | 5 | 1 | 5 | Topped at 18', poor specimen. Do Not Preserve | Good | Major defects or problems |
| 15347 | 14" | Douglas Fir | 5 | 1 | 5 | Partial crown due to crowding. Topped at 30'. | Good | Major defects or problems |
| 15348 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 15352 | 10" | Douglas Fir | 5 | 5 | 5 | Full crown | Fair | Few \& minor or correctable defects |
| 16009 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16010 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16013 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16014 | 16" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16015 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16016 | 9" \& 12" | Douglas Fir | 3 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16017 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16018 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16019 | 10" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16021 | 16" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16022 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16023 | 10" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16024 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16026 | 11" | Douglas Fir | 5 | 5 | 5 | Full thin crown with below average annual twig growth | Poor | Few \& minor or correctable defects |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. <br> Inches | Species | Trunk Condition | Crown Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16038 | $9{ }^{\prime \prime}$ | Douglas Fir | 5 | 5 |  | Full crown | Good | Moderate \& non-correctable defects |
| 16051 | 10" | Douglas Fir | 5 | 5 |  | Full crown | Fair | Few \& minor or correctable defects |
| 16052 | 12" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16053 | 8" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16058 | 13" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16061 | $10^{\prime \prime}$ | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16066 | 16" | Douglas Fir | 5 | 5 |  | Full crown | Good | Few \& minor or correctable defects |
| 16067 | $16 "$ | Douglas Fir | 5 | 5 |  | Full crown | Good | Few \& minor or correctable defects |
| 16069 | 14" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16070 | 11" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16071 | 8" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16072 | 15" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16073 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16074 | $9{ }^{\prime \prime}$ | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16075 | 10" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16076 | 13" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16077 | $9{ }^{\prime \prime}$ | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. Codominant stems at 18', poor specimen. Do Not Preserve. | Fair | Moderate \& non-correctable defects |
| 16079 | 13" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16080 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16081 | 14" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16082 | 14" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16084 | 7" | Douglas Fir | 5 | 3 | 5 | Small thin pfartial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16085 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16086 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16089 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16090 | 8" | Hooker Willow | 5 | 3 | 3 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16093 | 12" | Douglas Fir | 5 | 5 |  | Full crown with below average annual twig growth. All roots on south side were severed by road cut 6' from base. Tree is not stable. Remove. | Poor | Hazard |
| 16094 | 11" | Douglas Fir | 5 | 3 | 5 | Very thin partial crown due to crowding. Poor annual twig growth. All roots were severed on south side by road cut 5' from base. Tree is not stable. Remove. | Poor | Hazard |
| 16095 | 13" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16096 | 16" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16123 | 13" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16136 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Excellent | Moderate \& non-correctable defects |
| 16137 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Excellent | Moderate \& non-correctable defects |
| 16138 | 13" | Douglas Fir | 5 | 1 | 5 | Partial crown due to crowding. | Excellent | Moderate \& non-correctable defects |
| 16140 | 7" | Douglas Fir | 5 | 1 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16141 | 14" | Douglas Fir | 5 | 1 | 5 | Partial crown due to crowding. | Excellent | Moderate \& non-correctable defects |
| 16148 | 12" | Douglas Fir | 5 | 5 | 5 | Nearly full crown | Excellent | Few \& minor or correctable defects |
| 16149 | 6" | Pacific Madrone | 5 | 1 | 5 | Subdominant partial crown. Swoop in trunk. | Good | Major defects or problems |
| 16150 | 10" | Pacific Madrone | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16151 | 11" | Douglas Fir | 5 | 3 | 5 | Nearly full crown | Good | Moderate \& non-correctable defects |
| 16152 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16154 | 14" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16156 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Excellent | Moderate \& non-correctable defects |
| 16159 | 7" \& 7" | Pacific Madrone | 5 | 5 | 5 | Full crown, 2 stems at ground | Excellent | Few \& minor or correctable defects |
| 16164 | $9{ }^{\prime \prime}$ | Douglas Fir | 5 | 5 | 5 | Full crown | Excellent | Sound - No obvious defects |
| $\begin{aligned} & 16164 \\ & \mathrm{~B} \end{aligned}$ | 8,6,6 | Pacific Madrone | 5 | 3 | 5 | Full asymetric crown, 3 stems at 1'. | Good | Moderate \& non-correctable defects |
| 16178 | 8' \& 8" | Pacific Madrone | 5 | 3 | 5 | Partial crown due to crowding. | Excellent | Moderate \& non-correctable defects |
| 16205 | 13" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16207 | 14" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16208 | 11" | Douglas Fir | 5 | 5 | 5 | Full crown | Fair | Few \& minor or correctable defects |
| 16209 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16213 | 12" | Douglas Fir | 5 | 3 | 5 | Very thin partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16215 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16216 | 13" | Douglas Fir | 5 | 3 | 5 | Very thin partial crown due to crowding. | Fair | $\begin{array}{l}\text { Moderate \& non-corractoble } \\ \text { defects }\end{array}$ 154 |

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PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16217 | 11" | Douglas Fir | 5 | 3 | 5 | Very thin partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16218 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16219 | 15" | Pacific Madrone | 5 | 3 | 5 | Partial asymetric crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16242 | 13" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16243 | 18" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16245 | $14 "$ | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Major defects or problems |
| 16246 | 11" \& 9" | Hooker Willow | 1 | 3 |  | Partial crown due to crowding. Hollow trunk and moderate amount of medium to large deadwood in the crown. | Fair | Major defects or problems |
| 16248 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16249 | 14" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16250 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16251 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16255 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16256 | $10^{\prime \prime}$ | Douglas Fir | 5 | 3 | 1 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16257 | 14" | Douglas Fir | 5 | 3 |  | Partial crown due to crowding. Poor annual twig growth. All roots on south side were severed 3' off the base. This tree is not stable. Remove. | Poor | Hazard |
| 16258 | 12" | Douglas Fir | 5 | 3 | 5 | Dead lower crown, poor annual twig growth. | Poor | Moderate \& non-correctable defects |
| 16259 | 6" | Douglas Fir | 5 | 1 |  | Subdominant tree with crown less than 5\% of normal. Poor specimen, Do Not Preserve. | Poor | Major defects or problems |
| 16260 | 8" | Douglas Fir | 5 | 1 | 1 | Tiny partial crown due to crowding. | Poor | Major defects or problems |
| 16261 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16263 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-corr defects |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16264 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16267 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Fair | Moderate \& non-correctable defects |
| 16268 | 14" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16271 | 13" | Douglas Fir | 5 | 1 | 1 | Lower crown is dead, very poor annual twig growth. Poor specimen, Do Not Preserve. | Poor | Major defects or problems |
| 16272 | 11" | Douglas Fir | 5 | 1 | 1 | Lower crown is dead, very poor annual twig growth. Poor specimen, Do Not Preserve. | Poor | Major defects or problems |
|  | 14",7", 3" | Bird Cherry | 5 | 5 | 5 | Full crown. 6' of trunk is on ground where tree toppled over and side branch grew vertical forming main trunk. | Good | Major defects or problems |
| 16273 | 11" | Douglas Fir | 5 | 1 | 1 | Lower crown is dead, very poor annual twig growth. Poor specimen, Do Not Preserve. | Poor | Major defects or problems |
| 16274 | 11" | Douglas Fir | 5 | 1 | 1 | Lower crown is dead, very poor annual twig growth. Poor specimen, Do Not Preserve. | Poor | Major defects or problems |
| 16277 | 18" | Pacific Madrone | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16285 | 13" | Bird Cherry | 1 | 1 | 1 | Top broken out at 9'. Significant decay in trunk. Poor specimen. Do Not Preserve. | Fair | Major defects or problems |
| 16289 | 16" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16291 | 14" | Douglas Fir | 5 | 5 | 5 | Full crown | Fair | Few \& minor or correctable defects |
| 16293 | 19" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16298 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding. | Good | Moderate \& non-correctable defects |
| 16302 | 18" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16322 | 14" | Douglas Fir | 5 | 3 | 5 | Full crown. 2 codominant stems at 20' | Good | Moderate \& non-correctable defects |
| 16323 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 16324 | 13" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16335 | 8" | Bird Cherry | 3 | 5 | 5 | Full crown. Wound on lower trunk has mostly calloused over. | Good | Moderate \& non-correctable defects |
| 16336 | $\begin{array}{\|l} \hline 6 ", 6 ", 8^{\prime \prime} \\ \& 9 " \\ \hline \end{array}$ | Pacific Madrone | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16341 | 12" | Douglas Fir | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 16354 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 16355 | 12" | Douglas Fir | 5 | 1 | 5 | Partial crown due to crowding. Topped at 20', poor specimen. Do Not Preserve. | Fair | Major defects or problems |
| 16356 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 16357 | 8" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 16358 | 8" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 16359 | 13" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 16360 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 16361 | 15" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 20048 | 13 ' | Douglas Fir | 5 | 1 |  | Full crown, with dead top at $\mathbf{2 0}^{\prime}$. Poor specimen. Do Not Preserve. | Good | Major defects or problems |
| 20049 | 17" | Douglas Fir | 5 | 5 | 5 | Full crown | Excellent | Sound - No obvious defects |
| 20051 | 14" | Douglas Fir | 5 | 5 | 5 | Full thin crown with below average annual twig growth. | Fair | Few \& minor or correctable defects |
| 20053 | 12" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Few \& minor or correctable defects |
| 20055 | $14 "$ | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Few \& minor or correctable defects |
| 20059 | $10^{\prime \prime}$ | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 20060 | 11" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctable defects |
| 20061 | 10" | Douglas Fir | 5 | 3 | 5 | Partial crown due to crowding | Good | Moderate \& non-correctablo <br> defects 157 |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. Inches | Species | Trunk Condition | Crown <br> Devlmpt | Structure | Comments | Health | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20268 | 21" | Douglas Fir | 5 | 5 | 5 | Full crown | Excellent | Sound - No obvious defects |
| 21188 | 14" (DEAD) | Douglas Fir | Dead |  |  |  | Dead Dying | Hazard |
| 21189 | 31" | Douglas Fir | 1 | 1 | 1 | Dying, girdled by wire wrapped around trunk | Dead Dying | Major defects or problems |
| 21193 | 43" | Douglas Fir | 5 | 1 | 5 | Partial (1/2) crown. Thin crown with very poor annual twig growth. | Poor | Moderate \& non-correctable defects |
| 21196 | 42" | Douglas Fir | 5 | 1 | 5 | Partial (1/2) crown. Thin crown with very poor annual twig growth. | Poor | Moderate \& non-correctable defects |
| 22146 | 44" | Douglas Fir | 5 | 5 | 5 | Full crown with codominant stems at 14' |  |  |
| 22183 | 23" | Evergreen <br> Magnolia | 5 | 5 | 5 | Full crown. Nice specimen. | Excellent | Sound - No obvious defects |
| 22184 | 21" | Apple | 1 | 5 |  | Full crown, hollow trunk with large cavity on west side. Potential Hazard | Good | Major defects or problems |
| 22197 | $\begin{aligned} & \hline 5,5,5,3,3, \\ & 3,3,2.5 \\ & 2.5,2.5,2, \\ & 2,2,2,2^{\prime \prime} \end{aligned}$ | Witch Hazel | 5 | 5 | 5 | Shrubby tree with many stems | Fair | Moderate \& non-correctable defects |
| 22201 | $\begin{aligned} & 10,9,8,8, \\ & 8,4 " \end{aligned}$ | Black Walnut | 5 | 3 | 5 | partial crow, 6 stems at ground | Fair | Moderate \& non-correctable defects |
| 22204 | $\begin{array}{\|l} \hline 25^{\prime \prime}, 24^{\prime \prime}, \\ 21^{\prime \prime} \\ \hline \end{array}$ | Black Walnut | 3 | 1 | 1 | Full crown, 1 of 2 major stems is dead and a hazard. | Fair | Major defects or problems |
| 22236 | $\begin{array}{\|} \hline 9^{\prime \prime}, 11^{\prime \prime}, \\ 13^{\prime \prime}, 17 ", \\ 17 ", 18 " \\ \hline \end{array}$ | Silver Maple | 3 | 1 |  | Partial crown due to crowding. 6 stems at ground and one of the largest stems is dead. | Fair | Major defects or problems |
| 22237 | 47" | Northern Red Oak | 5 | 5 | 5 | Full crown | Good | Few \& minor or correctable defects |
| 22238 | $26 "$ | Silver Maple | 5 | 1 | 3 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 22239 | $24 "$ | Silver Maple | 5 | 1 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 22240 | 37" | Willow species | 5 | 1 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |
| 22241 | 24" | Silver Maple | 1 | 1 | 5 | Partial crown due to crowding | Fair | Moderate \& non-correctable defects |

PGE Tualatin Phase 1269 Tree Assessment

| Tag No | Dia. <br> Inches | Species | Trunk <br> Condition | Crown <br> Devlmpt | Structure |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$| Comments |
| :--- |


| DECIDUOUS TREES |  |  |  |
| :---: | :---: | :---: | :---: |
| FACTOR | VARIATION OF CONDITION FACTOR |  |  |
| Trunk Condition | Sound and Solid (5), Sections of Bark Missing (3), Extensive Decay and Hollow (1) |  |  |
| Crown | Full and Balanced (5), Full but Unbalanced (3) Unbalanced and Lacking a Fulll Crown (1) |  |  |
| Structure | Sound (5) One Major or Several Minor Limbs Dead (3) Two or More Limbs Dead (1) |  |  |
|  |  |  |  |
| EVERGREEN/CONIFEROUS TREES |  |  |  |
| FACTOR | VARIATION OF CONDITION FACTOR |  |  |
| Trunk Condition | Sound and Solid (5), Sections of Bark Missing (3), Extensive Decay and Hollow (1) |  |  |
| Crown | Full and Balanced (5), Full but Unbalanced (3) Unbalanced and Lacking a Fulll Crown (1) |  |  |
|  |  |  |  |
| HEALTH- E excellent G good F fair P poor D dead or dying |  |  |  |
|  |  |  |  |
| CONDITION- $\mathrm{A}=$ sound $\mathrm{B}=$ few \& correctable defects $\mathrm{C}=$ moderate $\&$ noncorrectable defects $\mathrm{D}=$ major defects or problems E= hazard, dead, dying |  |  |  |



# Portland General Electric IOC COMMUNICATIONS TOWER Radio Frequency Report, Purpose \& Need 

March, 2019

Prepared By

## Executive Summary:

Portland General Electric (PGE) has undertaken a project to construct an Integrated Operations Center (IOC) to replace their existing operations center in downtown Portland. The IOC will house a $24 / 7$ system control center as well as a data center. The need for the new IOC is driven partly by facilities limitations at the existing operations center. An additional driving component is the increasing regulatory requirements for the protection, safety and reliability of the nation's electrical grid.

The IOC will require a robust system to communicate with the outside world as well as internally within the PGE network. In order to accomplish this, several forms and routes for communications will be implemented. This will diversify PGE's communications and act as a failsafe in the case of a communications failure. Public telephone, private mobile radio, private fiber optics and private microwave radio will be employed to accomplish this.

PGE currently operates a private microwave radio network throughout much of Oregon and into Washington. PGE commissioned a "Microwave Path Survey Report - IOC Paths" that would determine a practical location for a communications tower to service the IOC and the required height (attached for reference as Exhibit B). Given that, a tower that services the IOC site must be of sufficient height for at least two microwave paths to have clearance over any obstructions to properly function. The two functioning microwave paths will provide for a diverse route to other PGE communications sites. In addition to the path clearance requirements, the tower must be located within the IOC compound such that access to the tower can be monitored and controlled. The path survey report concluded that the minimum tower height required was 140' and that it could be located within the IOC compound.

The Tualatin Development Code (TDC) suggests that in order to construct a tower over a predetermined height and receive a variance, the proponent must demonstrate the following:

- "It is technically not practical to provide the needed capacity or coverage the tower is intended to provide at a height that meets the TDC requirements. The needed capacity or coverage must be documented with a Radio Frequency report; and
- The collocation report, required as part of the Architectural Review submittal, must document that existing WCFs, or a WCF for which an application has been filed and not denied, cannot be modified to provide the capacity or coverage the tower is intended to provide."

The microwave path survey report demonstrates that it is technically necessary to have a tower with a minimum height of $140^{\prime}$ (see Figure 4.0 as an example). Additionally, and as depicted in Figure 3-1500' Radius Around IOC Tower, there are no existing WCFs within the 1500 foot search area. Further, any other tower not located within the fenced IOC compound would not provide the level of security required by regulatory agencies.

## IOC Background:

Portland General Electric (PGE) provides distribution and transmission services to approximately $40 \%$ of Oregon's population making it the state's largest power utility. As such, PGE is mandated to provide reliable and safe power to its customers. Part of that mission is accomplished by operating a $24 / 7$ control center and data center, currently housed in a building in downtown Portland. This existing building has significant limitations that cannot be easily corrected. Coupled with increasing regulatory requirements placed on the operation of the nation's power grid and PGE is now driven to construct a new Integrated Operations Center (IOC).

Part of the function of the IOC will be the monitoring of the Western Interconnect (the western electrical grid) and coordination with other utilities. The coordination with other utilities involves not only verbal communications but various electronic forms as well. The various coordination actions and communications forms are, in part, dictated by the Western Electricity Coordination Council (WECC). WECC is given its authority to oversee the Western Interconnect by the Federal Energy Regulatory Commission (FERC). WECC is responsible for the regional enforcement and compliance monitoring of Reliability Standards for the operation and coordination activities within the Western Interconnect.

## IOC Communications:

As the IOC will function as a control center for PGE's electrical operations, several control and monitoring communications circuits (traffic) will be routed to and from the site. Much of these circuits are critical in nature. WECC provides rules for the reliability and routing of these critical circuits. In short, WECC guidelines state that these critical circuits must have diverse routing through multiple forms of communications. Strict rules are also in place to control the security of communications, both physically and electronically.

Due to the importance of the IOC function and the critical communications traffic, PGE will employ several communications formats. A private fiber optic network will be routed in and out of the IOC. For route diversification and backup, microwave radio will also be utilized. The microwave radio will necessitate the construction of a lattice tower to support the parabolic microwave antennas. The tower will also support antennas for PGE's private land mobile radio network (LMR). Their LMR network is not only crucial to communicating with field personnel for power switching functions on a day-to-day basis, but especially in times of outages or emergencies.

The height of the communication tower was determined by a field survey performed for three potential microwave paths in and out of the IOC (Microwave Path Survey Report - IOC Paths).

## Path Survey Approach \& Results:

The proposed tower location was selected after reviewing several alternatives, and it best meets the objectives: having a workable microwave path to other PGE communications sites, being located inside the secure fence and having the minimum possible height. PGE has existing communications sites to the west on Bald Peak in Yamhill County, to the north at Healy Heights near OHSU and to the northeast on Mount Scott in Happy Valley. Workable microwave paths to these referenced PGE sites will create a link for their own communications network. This, in turn, will establish internally network communications as well as interfaces with other utilities.

The purpose of the field survey was to verify whether there would be an unobstructed path to any of PGE's existing communications sites. The unobstructed path is often referred to as line-of-sight. In general the field investigation found that mature evergreen trees located in close proximity (close-in trees) to the IOC project site will dictate the microwave antenna heights.

Although the required clearance over a potential obstruction is referred to as line-of-sight it is important to understand that just seeing the other end of a microwave path will not provide sufficient clearances for the path to operate correctly. A microwave path is influenced by atmospheric conditions, the earth's curvature and the size of, in most cases, a full $1^{\text {st }}$ Fresnel zone. In microwave propagation models, the Fresnel zone is a cylindrical eclipse between a transmitting antenna and a receiving antenna. The size of the Fresnel zone, or eclipse, is determined by the frequency and distance of the microwave path. The size of the first Fresnel zone can be expressed mathematically ${ }^{1}$ :

$$
F^{1}=72.1 \sqrt{ } \frac{d_{1} d_{2}}{f D}
$$

Where: $F_{1}=1^{\text {st }}$ Fresnel zone in feet
$d_{1}=$ Distance from one end of path to point of interest in miles
$\mathrm{D}=$ Total length of path in miles
$\mathrm{d}_{2}=\mathrm{D}-\mathrm{d}_{1}$
$\mathrm{f}=$ Frequency in GHz
The size of the first Fresnel zone is important to the proper operation of a microwave path. Without sufficient clearances the path will suffer signal degradation due to obstruction loss. Another important path clearance consideration is tree growth. The field investigation found that close-in trees will define the microwave antenna mounting heights. Given that, it is prudent to add a tree growth factor to the clearances over the trees. In this case 20 feet of additional clearance has been added to determine the final antenna mounting heights presented in the path survey report.
${ }^{1}$ GTE Lenkurt Incorporated, "Engineering Considerations for Microwave Communications Systems", Forth Edition.

## IOC Tower Location \& Height:

Figure 1.0, "IOC Tower Site" depicts the location of the proposed tower. The site was chosen, in part, due to the overall IOC site design. Another important consideration is the tower's proximity to the IOC buildings. Critical electronics will be housed within the IOC buildings. Radio and other electronics will be housed in a pre-fabricated communications shelter near the base of the tower. A fiber optic cable will tie the IOC buildings and the communications shelter together.

The path survey found that the shortest required tower would 140 feet in height. This would provide clearances for the three potential microwave paths out of the IOC. Figure 2.0, "IOC Tower - Potential Microwave Paths" shows the paths emanating from this tower site.

Other factors taken into account for this tower location include the lack of any other tower facilities in the vicinity of the IOC site. Figure 3.0, " 1500 ' Radius Around IOC Tower" shows that the nearest WCF is outside the Tualatin city limits and is therefore not subject to the City's development code. The nearest WCF inside city limits is even farther away to the northeast of the site. Both of these facilities are farther than 1500 feet from the proposed tower, and therefore inappropriate for co-location. This is further shown in the City of Tualatin's document "Existing WCF's with 1500' Buffer Area", which is incorporated in this report by reference.

A final consideration for the tower location is cyber and physical security. This proposed tower will be part of a communications network that will carry information and data vital to the operation of the nation's electrical grid. PGE is mandated by federal regulators to take physical security measures to keep their cyber assets secure. The tower site needs to be located within the IOC secured area.

## Final Considerations:

PGE is required to have diverse communications routes in and out of this proposed facility. To meet this requirement PGE will employ various forms of electronic communications. One such form will be the use of microwave radio. The antennas for microwave communications must be supported on a structure, or tower, that will provide for adequate existing and future physical clearances over potential obstructions.

The proposed location for the tower was chosen as it will require the shortest possible tower ( $140^{\prime}$ ). The tower location will also allow for physical security that is critical to the IOC site.

The final structural design of the tower will provide for PGE's present and future needs. Because of the heightened security requirements for this site, considerations for additional tower loading from third parties will only be given to police, fire and other emergency services.


FIGURE 1.0
IOC Tower Site


FIGURE 2.0
IOC TOWER - Potential M/W Paths
452159.5 N
1224816.9 W


Figure 3.0
$1500^{\prime}$ RADIUS AROUND IOC TOWER


FIGURE 4.0 Tower Example


Profile A - Morin Matrix 1.0


Profile B - Morin Matrix 2.0


Profile D - Morin Matrix 2.0
Color- Custom color to match Architect's sample


Profile H - M orin Matrix 2.0


Color- Spartan Bronze


Fiberglass Windows Cascadia Fiberglass Window System - Universal Series


Timber Curtain Wall SystemSierra Pacific Timber Curtain Wall System


Color- Black 201


Color- Dark Bronze Industrial 102


Exposed Exterior Steel Tnemec Paint - M edium Bronze 85BR

Freestanding Canopy
Tnemec Paint - Medium Bronze 85BR


IGU 4 - Spandrel Glazing Benjamin Moore - North Creek Brown 1001

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(7) ELEVATION - NORTH


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(9) PLAN - TRASH ENCLOSURE $\qquad$ -

(11) $\frac{\text { ELEVATION }- \text { EAST }}{1 / 4=1.0^{\circ}}$

(10) ELEVATION - SOUTH

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AR-A120






PROJECT DATA



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VICIIITY MAP


 Dreyfuss+ Blackford architecture




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Site plan




general notes
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 TREE REMOVAL
AND
PRESERVATION PLAN



Dreyfuss+ Blackford

(1) (1)TREE REMOVAL AND PRESERVATION PLAN - SOUTH
 TREE REMOVAL
AND AND
PRESERVATION PLAN


(1) GENERAL TREE PROTECTION $\qquad$ -



GENERAL TREE PROTECTION

(2) MOVABLE TREE PROTECTION


SITE LIGHTING - CITY OF TUALATIN - CODE COMPLIANCE
 .







Covorom 11 S We.



covorotona 2 as we.



## SITE LIGHTING CONTROLS




SITE LIGHTING PHOTOMETRICS (GROUND PLANE)


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# Tualatin Valley Fire \& Rescue 

April 25, 2019

Tabitha Boschetti<br>Assistant Planner<br>City of Tualatin<br>18880 SW Martinazzi Avenue<br>Tualatin, Oregon 97062

## Re: PGE Integrated Operations Center

Tax Lot I.D: 2S127C000701, 2S127C000500

## Dear Tabitha,

Thank you for the opportunity to review the proposed site plan surrounding the above named development project. These notes are provided in regards to the plans received on April 19, 2019. There may be more or less requirements needed based upon the final project design, however, Tualatin Valley Fire \& Rescue will endorse this proposal predicated on the following criteria and conditions of approval.

## FIRE APPARATUS ACCESS:

1. FIRE APPARATUS ACCESS ROAD DISTANCE FROM BUILDINGS AND FACILITIES: Access roads shall be within 150 feet of all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building or facility. An approved turnaround is required if the remaining distance to an approved intersecting roadway, as measured along the fire apparatus access road, is greater than 150 feet. (OFC 503.1.1)
2. DEAD END ROADS AND TURNAROUNDS: Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround. Diagrams can be found in the corresponding guide that is located at http://www.tvfr.com/DocumentCenter/View/1296. (OFC 503.2.5 \& D103.1)
3. ADDITIONAL ACCESS ROADS - COMMERCIAL/INDUSTRIAL HEIGHT: Buildings exceeding 30 feet in height or three stories in height shall have at least two separate means of fire apparatus access. (D104.1)
4. AERIAL FIRE APPARATUS ROADS: Buildings with a vertical distance between the grade plane and the highest roof surface that exceeds 30 feet in height shall be provided with a fire apparatus access road constructed for use by aerial apparatus with an unobstructed driving surface width of not less than 26 feet. For the purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of the parapet walls, whichever is greater. Any portion of the building may be used for this measurement, provided that it is accessible to firefighters and is capable of supporting ground ladder placement. (OFC D105.1, D105.2)
5. AERIAL APPARATUS OPERATIONS: At least one of the required aerial access routes shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial access road is positioned shall be approved by the Fire Marshal. Overhead utility and power lines shall not be located over the aerial access road or between the aerial access road and the building. (D105.3, D105.4)
6. MULTIPLE ACCESS ROADS SEPARATION: Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the area to be served (as identified by the Fire Marshal), measured in a straight line between accesses. (OFC D104.3)
Current proposal is acceptable.
7. FIRE APPARATUS ACCESS ROAD WIDTH AND VERTICAL CLEARANCE: Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet ( 26 feet adjacent to fire hydrants (OFC D103.1)) and an unobstructed vertical clearance of not less than 13 feet 6 inches. (OFC 503.2.1 \& D103.1)
8. NO PARKING SIGNS: Where fire apparatus roadways are not of sufficient width to accommodate parked vehicles and 20 feet of unobstructed driving surface, "No Parking" signs shall be installed on one or both sides of the roadway and in turnarounds as needed. Signs shall read "NO PARKING - FIRE LANE" and shall be installed with a clear space above grade level of 7 feet. Signs shall be 12 inches wide by 18 inches high and shall have red letters on a white reflective background. (OFC D103.6)
9. NO PARKING: Parking on emergency access roads shall be as follows (OFC D103.6.1-2):
10. 20-26 feet road width - no parking on either side of roadway
11. 26-32 feet road width - parking is allowed on one side
12. Greater than 32 feet road width - parking is not restricted

Note: For specific widths and parking allowances, contact the local municipality.
10. PAINTED CURBS: Where required, fire apparatus access roadway curbs shall be painted red (or as approved) and marked "NO PARKING FIRE LANE" at 25 foot intervals. Lettering shall have a stroke of not less than one inch wide by six inches high. Lettering shall be white on red background (or as approved). (OFC 503.3)
11. FIRE APPARATUS ACCESS ROADS WITH FIRE HYDRANTS: Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet and shall extend 20 feet before and after the point of the hydrant. (OFC D103.1)
12. TURNOUTS: Where access roads are less than 20 feet and exceed 400 feet in length, turnouts 10 feet wide and 30 feet long may be required and will be determined on a case by case basis. (OFC 503.2.2)
13. SURFACE AND LOAD CAPACITIES: Fire apparatus access roads shall be of an all-weather surface that is easily distinguishable from the surrounding area and is capable of supporting not less than 12,500 pounds point load (wheel load) and 75,000 pounds live load (gross vehicle weight). Documentation from a registered engineer that the final construction is in accordance with approved plans or the requirements of the Fire Code may be requested. (OFC 503.2.3)
14. BRIDGES: Private bridges shall be designed and constructed in accordance with the State of Oregon Department of Transportation and American Association of State Highway and Transportation Officials Standards Standard Specification for Highway Bridges. A building permit shall be obtained for the construction of the bridge if required by the building official of the jurisdiction where the bridge is to be built. The design engineer shall prepare a special inspection and structural observation program for approval by the building official. The design engineer shall give, in writing; final approval of the bridge to the fire district after construction is completed. Maintenance of the bridge shall be the responsibility of the party or parties that use the bridge for access to their property. The fire district may at any time, for due cause, ask that a registered engineer inspect the bridge for structural stability and soundness at the expense of the property owner(s) the bridge serves. Vehicle load limits shall be posted at both entrances to bridges when required by the Fire Marshal. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained when required by the Fire Marshal. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained when required by the Fire Marshal. (OFC 503.2.6)
15. TURNING RADIUS: The inside turning radius and outside turning radius shall not be less than 28 feet and 48 feet respectively, measured from the same center point. (OFC 503.2.4 \& D103.3)
ACCESS ROAD GRADE: Fire apparatus access roadway grades shall not exceed $15 \%$. Alternate methods and materials may be available at the discretion of the Fire Marshal (for grade exceeding 15\%).
ANGLE OF APPROACH/GRADE FOR TURNAROUNDS: Turnarounds shall be as flat as possible and have a maximum of $5 \%$ grade with the exception of crowning for water run-off. (OFC 503.2.7 \& D103.2)
16. ANGLE OF APPROACH/GRADE FOR INTERSECTIONS: Intersections shall be level (maximum 5\%) with the exception of crowning for water run-off. (OFC 503.2.7 \& D103.2)
17. AERIAL APPARATUS OPERATING GRADES: Portions of aerial apparatus roads that will be used for aerial operations shall be as flat as possible. Front to rear and side to side maximum slope shall not exceed 10\%.
18. GATES: Gates securing fire apparatus roads shall comply with all of the following (OFC D103.5, and 503.6):

1. Minimum unobstructed width shall be not less than 20 feet (or the required roadway surface width).
2. Gates shall be set back at minimum of 30 feet from the intersecting roadway or as approved.
3. Electric gates shall be equipped with a means for operation by fire department personnel
4. Electric automatic gates shall comply with ASTM F 2200 and UL 325.
5. ACCESS DURING CONSTRUCTION: Approved fire apparatus access roadways shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. Temporary address signage shall also be provided during construction. (OFC 3309 and 3310.1)
6. TRAFFIC CALMING DEVICES: Shall be prohibited on fire access routes unless approved by the Fire Marshal. (OFC 503.4.1). Traffic calming measures linked here: http://www.tvfr.com/DocumentCenter/View/1578

## FIREFIGHTING WATER SUPPLIES:

23. COMMERCIAL BUILDINGS - REQUIRED FIRE FLOW: The minimum fire flow and flow duration shall be determined in accordance with OFC Table B105.2. The required fire flow for a building shall not exceed the available GPM in the water delivery system at 20 psi residual. (OFC B105.3)
Note: OFC B106, Limiting Fire-Flow is also enforced, except for the following:

- The maximum needed fire flow shall be 3,000 GPM, measured at 20 psi residual pressure.
- Tualatin Valley Fire \& Rescue does not adopt Occupancy Hazards Modifiers in section B105.4-B105.4.1

An assumption was made of construction type IIB. Which would require a fire flow demand of $7,000 \mathrm{gpm}$. With the reduction for fire sprinklers the required fire flow would be $1,750 \mathrm{gpm}$.
24. FIRE FLOW WATER AVAILABILITY: Applicants shall provide documentation of a fire hydrant flow test or flow test modeling of water availability from the local water purveyor if the project includes a new structure or increase in the floor area of an existing structure. Tests shall be conducted from a fire hydrant within 400 feet for commercial projects, or 600 feet for residential development. Flow tests will be accepted if they were performed within 5 years as long as no adverse modifications have been made to the supply system. Water availability information may not be required to be submitted for every project. (OFC Appendix B)
Provide documentation of fire hydrant flow test or modeling.
25. WATER SUPPLY DURING CONSTRUCTION: Approved firefighting water supplies shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. (OFC 3312.1)

## FIRE HYDRANTS:

26. FIRE HYDRANTS - COMMERCIAL BUILDINGS: Where a portion of the building is more than 400 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the building, on-site fire hydrants and mains shall be provided. (OFC 507.5.1)

- This distance may be increased to 600 feet for buildings equipped throughout with an approved automatic sprinkler system.
- The number and distribution of fire hydrants required for commercial structure(s) is based on Table C105.1, following any fire-flow reductions allowed by section B105.3.1. Additional fire hydrants may be required due to spacing and/or section 507.5 of the Oreaon Fire Code.

27. FIRE HYDRANT(S) PLACEMENT: (OFC C104)

- Existing hydrants in the area may be used to meet the required number of hydrants as approved. Hydrants that are up to 600 feet away from the nearest point of a subject building that is protected with fire sprinklers may contribute to the required number of hydrants. (OFC 507.5.1)
- Hydrants that are separated from the subject building by railroad tracks shall not contribute to the required number of hydrants unless approved by the Fire Marshal.
- Hydrants that are separated from the subject building by divided highways or freeways shall not contribute to the required number of hydrants. Heavily traveled collector streets may be considered when approved by the Fire Marshal.
- Hydrants that are accessible only by a bridge shall be acceptable to contribute to the required number of hydrants only if approved by the Fire Marshal.

28. PRIVATE FIRE HYDRANT IDENTIFICATION: Private fire hydrants shall be painted red in color. Exception: Private fire hydrants within the City of Tualatin shall be yellow in color. (OFC 507)

## If private hydrant will be installed, then they shall be painted yellow.

29. FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD: Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway unless approved by the Fire Marshal. (OFC C102.1)
30. REFLECTIVE HYDRANT MARKERS: Fire hydrant locations shall be identified by the installation of blue reflective markers. They shall be located adjacent and to the side of the center line of the access roadway that the fire hydrant is located on. In the case that there is no center line, then assume a center line and place the reflectors accordingly. (OFC 507)

Reflective markers can be provided by TVFR. Contact me when ready to install.
31. PHYSICAL PROTECTION: Where fire hydrants are subject to impact by a motor vehicle, guard posts, bollards or other approved means of protection shall be provided. (OFC 507.5.6 \& OFC 312)
32. CLEAR SPACE AROUND FIRE HYDRANTS: A 3 foot clear space shall be provided around the circumference of fire hydrants. (OFC 507.5.5)
33. FIRE DEPARTMENT CONNECTION (FDC) LOCATIONS: FDCs shall be located within 100 feet of a fire hydrant (or as approved). Hydrants and FDC's shall be located on the same side of the fire apparatus access roadway or drive aisle, fully visible, and recognizable from the street or nearest point of the fire department vehicle access or as otherwise approved. (OFC 912.2.1 \& NFPA 13)

- Fire department connections (FDCs) shall normally be located remotely and outside of the fall-line of the building when required. FDCs may be mounted on the building they serve, when approved.
- FDCs shall be plumbed on the system side of the check valve when sprinklers are served by underground lines also serving private fire hydrants.


## BUILDING ACCESS AND FIRE SERVICE FEATURES

34. EMERGENCY RESPONDER RADIO COVERAGE: In new buildings where the design reduces the level of radio coverage for public safety communications systems below minimum performance levels, a distributed antenna system, signal booster, or other method approved by TVF\&R and Washington County Consolidated Communications Agency shall be provided. (OFC 510, Appendix F, and OSSC 915) http://www.tvfr.com/DocumentCenter/View/1296.

- Emergency responder radio system testing and/or system installation is required for this building. Please contact me (using my contact info below) for further information including an alternate means of compliance that is available. If the alternate method is preferred, it must be requested from TVF\&R prior to issuance of building permit.
- Testing shall take place after the installation of all roofing systems; exterior walls, glazing and siding/cladding; and all permanent interior walls, partitions, ceilings, and glazing.

The proposed building exceeds $50,000 \mathrm{sq} \mathrm{ft}$ and will require either the installation of an ERRC system, testing of the building (you must design the building with all conduit, boxes etc in anticipation of needing a system) or participate in TVFR's MERRC fee in lieu.

If electing the fee in lieu it must be approved and paid before issuance of building permits. Attached is an application for the MERRC program.
35. KNOX BOX: A Knox Box for building access may be required for structures and gates. See Appendix B for further information and detail on required installations. Order via www.tvfr.com or contact TVF\&R for assistance and instructions regarding installation and placement. (OFC 506.1)

If building will be staffed 24 hours then a Knox Box is not required.
36. FIRE PROTECTION EQUIPMENT IDENTIFICATION: Rooms containing controls to fire suppression and detection equipment shall be identified as "Fire Control Room." Signage shall have letters with a minimum of 4 inches high with a minimum stroke width of $1 / 2$ inch, and be plainly legible, and contrast with its background. (OFC 509.1)

Riser room door needs to be marked as indicated above.
37. PREMISES IDENTIFICATION: New and existing buildings shall have approved address numbers; building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property, including monument signs. These numbers shall contrast with their background. Numbers shall be a minimum of 4 inches high with a minimum stroke width of $1 / 2$ inch. (OFC 505.1)

If you have questions or need further clarification, please feel free to contact me at 503-259-1419.
Sincerely,

## Tom Mooney

Tom Mooney
Deputy Fire Marshal II
Thomas.mooney@tvfr.com

Cc: File
City of Tualatin

A full copy of the New Construction Fire Code Applications Guide for Commercial and Multi-Family Development is available at http://www.tvfr.com/DocumentCenter/View/1296

# MEMORANDUM 

Date: June 3, 2019
To: Tabitha Boschetti, Assistant Planner, City of Tualatin
From: Jackie Sue Humphreys, Clean Water Services (CWS)
Subject: PGE Integrated Operations Center, CUP 19-0002, VAR 19-0001, AR 19-0005, 2S127C000701, 00500

Please include the following comments when writing your conditions of approval:

## PRIOR TO ANY WORK ON THE SITE

A Clean Water Services (CWS) Storm Water Connection Permit Authorization must be obtained. Application for CWS Permit Authorization must be in accordance with the requirements of the Design and Construction Standards, Resolution and Order No. 19-5, (or current R\&O in effect at time of Engineering plan submittal), and is to include:
a. Detailed plans prepared in accordance with Chapter 2, Section 2.04.
b. Detailed grading and erosion control plan. An Erosion Control Permit will be required. Area of Disturbance must be clearly identified on submitted construction plans. If site area and any offsite improvements required for this development exceed one-acre of disturbance, project will require a 1200-CN Erosion Control Permit. If site area and any offsite improvements required for this development exceed five-acres of disturbance, project will require a 1200-C Erosion Control Permit.
c. Detailed plans showing each lot within the development having direct access by gravity to public storm and sanitary sewer.
d. Provisions for water quality in accordance with the requirements of the above named design standards. Water Quality is required for all new development and redevelopment areas per R\&O 19-5, Section 4.04. Access shall be provided for maintenance of facility per R\&O 19-5, Section 4.07.6.
e. If use of an existing offsite or regional Water Quality Facility is proposed, it must be clearly identified on plans, showing its location, condition, capacity to treat this site and, any additional improvements and/or upgrades that may be needed to utilize that facility.
f. If private lot LIDA systems proposed, must comply with the current CWS Design and Construction Standards. A private maintenance agreement, for the proposed private lot LIDA systems, needs to be provided to the City for review and acceptance.
g. Show all existing and proposed easements on plans. Any required storm sewer, sanitary sewer, and water quality related easements must be granted to the City.
h. Site contains a "Sensitive Area." Applicant shall comply with the conditions as set forth in the Service Provider Letter No. 19-000069, dated April 17, 2019.
i. Clean Water Services shall require an easement over the Vegetated Corridor conveying storm and surface water management to Clean Water Services that would prevent the owner of the Vegetated Corridor from activities and uses inconsistent with the purpose of the corridor and any easements therein.
j. Detailed plans showing the sensitive area and corridor delineated, along with restoration and enhancement of the corridor.
k. Any proposed offsite construction activities will require an update or amendment to the current Service Provider Letter for this project.

## CONCLUSION

This Land Use Review does not constitute CWS approval of storm or sanitary sewer compliance to the NPDES permit held by CWS. CWS, prior to issuance of any connection permits, must approve final construction plans and drainage calculations.


[^0]:    ${ }^{1}$ The TDC does not offer a definition of helipad. Chapter 39 - Use Categories does not have a prescribed category that fits the proposed use.

[^1]:    Winterbrook Planning
    310 SW Fourth Avenue, Suite 1100
    Portland, OR 97204
    $503.827 .4422 \cdot 503.827 .4350$ (fax)
    Jaíme@winterbrookplanning.com

