



DEVELOPMENT REVIEW APPLICATION

For Office Use Only		
STAFF CONTACT <i>Jennifer Arnold</i>	PROJECT NO(S) <i>SUB-18-04/WAP-18-06</i>	
NON-REFUNDABLE FEE(S) <i>3,350</i>	REFUNDABLE DEPOSIT(S) <i>6,600</i>	TOTAL <i>9,950</i>

Type of Review (Please check all that apply):

- Annexation (ANX)
- Appeal and Review (AP) *
- Conditional Use (CUP)
- Design Review (DR)
- Easement Vacation
- Extraterritorial Ext. of Utilities
- Final Plat or Plan (FP)
- Flood Management Area
- Hillside Protection & Erosion Control
- Historic Review
- Legislative Plan or Change
- Lot Line Adjustment (LLA) */**
- Minor Partition (MIP) (Preliminary Plat or Plan)
- Non-Conforming Lots, Uses & Structures
- Planned Unit Development (PUD)
- Pre-Application Conference (PA) */**
- Street Vacation
- Subdivision (SUB)
- Temporary Uses *
- Time Extension *
- Variance (VAR)
- Water Resource Area Protection/Single Lot (WAP)
- Water Resource Area Protection/Wetland (WAP)
- Willamette & Tualatin River Greenway (WRG)
- Zone Change

Home Occupation, Pre-Application, Sidewalk Use, Sign Review Permit, and Temporary Sign Permit applications require different or additional application forms, available on the City website or at City Hall.

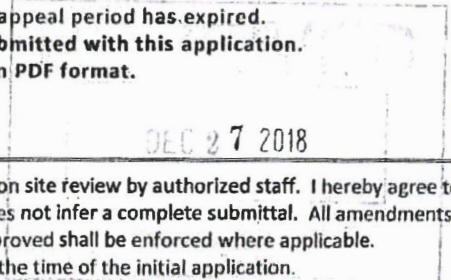
Site Location/Address: 22870 WEATHERHILL RD.	Assessor's Map No.: 21E35B
	Tax Lot(s): 405
	Total Land Area: 2.57 Acres

Brief Description of Proposal: **APPLICANT PROPOSES TO SUBDIVIDE 2.57 ACRES INTO A 12-LOT RESIDENTIAL SUBDIVISION IN THE R-7 ZONE.**

Applicant Name: EMERIO DESIGN, LLC / ATTN: STEVE MILLER <small>(please print)</small>	Phone: (541) 318-7487
Address: 6445 SW FALLBROOK PL., STE 100	Email: STEVEM@EMERIODESIGN.COM
City State Zip: BEAVERTON, OR 97008	
Owner Name (required): 22870 WEATHERHILL, LLC/ROD FRIESEN <small>(please print)</small>	Phone: (971) 235-3314
Address: 22870 WEAHTERHILL RD	Email: rod.friesen@frontier.com
City State Zip: WEST LINN, OR 97068	
Consultant Name: EMERIO DESIGN, LLC - ATTN: STEVE MILLER <small>(please print)</small>	Phone: (541) 318-7487
Address: 6445 SW FALLBROOK PL., SUITE 100	Email: stevem@emeriodesign.com
City State Zip: BEAVERTON, OR 97008	

- All application fees are non-refundable (excluding deposit). Any overruns to deposit will result in additional billing.
- The owner/applicant or their representative should be present at all public hearings.
- A denial or approval may be reversed on appeal. No permit will be in effect until the appeal period has expired.
- Three (3) complete hard-copy sets (single sided) of application materials must be submitted with this application. One (1) complete set of digital application materials must also be submitted on CD in PDF format. If large sets of plans are required in application please submit only two sets.

* No CD required / ** Only one hard-copy set needed



The undersigned property owner(s) hereby authorizes the filing of this application, and authorizes on site review by authorized staff. I hereby agree to comply with all code requirements applicable to my application. Acceptance of this application does not infer a complete submittal. All amendments to the Community Development Code and to other regulations adopted after the application is approved shall be enforced where applicable. Approved applications and subsequent development is not vested under the provisions in place at the time of the initial application.

Steve Miller _____ Date _____ *Rod Friesen* _____ Date _____
Applicant's signature Owner's signature (required)

EMERIO *Design*

CIVIL ENGINEERS & PLANNERS

DATE: 12-27-2018

**PROPERTY OWNER/
DEVELOPER:**

22870 Weatherhill, LLC
%Partnership Administrator: Rod Friesen
12810 SW Morningstar Dr.
Tigard, OR 97223
Ph.: (971) 235-3314
E-mail: rod.friesen@frontier.com

**CIVIL ENGINEER,
PLANNING &
SURVEYOR:**

Emerio Design, LLC
Attn: Steve Miller
6445 SW Fallbrook Pl., Suite 100
Beaverton, OR 97008
(541) 318-7487
E-mail: stevem@emeriodesign.com

REQUEST: Approval of 24-Lot Subdivision in the R-7 zone.

SITE

LOCATION: 22870 Weatherhill Rd.

ZONING: Single-Family Residential Detached and attached (R-7), City of West Linn, Oregon

SITE SIZE: 2.57 Acres

LEGAL DESCRIPTION: Tax Map 2S1E35B, Tax Lot 405

LIST OF EXHIBITS:

- 1 - Detailed Plan Set
- 2 – Pre-Application Notes
- 3 – Neighborhood Meeting Notice
- 4 – Phase I Environmental Report
- 5 – Geotechnical Report

6 – Stormwater Management Report

7 – Arborist Report

WEST LINN APPLICABLE COMMUNITY DEVELOPMENT CODE (CDC) SECTIONS

CDC Chapter 12: (R-7 Zone)

CDC Chapter 32: Water Resource Area Protection

CDC Chapter 48: Access, Egress and Circulation

CDC Chapter 85: Land Division

CDC Chapter 92: Required Improvements

I. INTRODUCTION

The applicant is applying to subdivide an approximately 2.57 – acre property in a manner that allows the applicant to provide a variety of lot sizes and housing types. The subject property was recently annexed into the City of West Linn pursuant to File No. ANX-17-01 and Ordinance #1671. A pre-application conference was held with the City to discuss the subdivision of this property on September 6, 2018 by the Applicant.

The subject property is located on the south side of Weatherhill Road approximately 180-feet east Satter Street. The property is located on a hill and the site slopes gently downward to the south/southeast. There is one existing single-family residential home on the property, as well as the presence of a headwater to a small ephemeral stream on the southern edge of the property. The home will be removed with the development of the subdivision. There are trees, planted fields and grass, and a defined garden area on the property.

Adjacent properties to the south, east and west are within the West Linn City limits and are zoned R-7. These properties are developed with residential dwellings. There are two (2) properties located immediately to the north and across Weatherhill Road. One is located within the City and is developed with the Tanner Springs Assisted Living facility, while the other is located in unincorporated Clackamas County and is developed with a single-family residence.

II. CONFORMANCE WITH CITY OF WEST LINN CODE APPROVAL CRITERIA

CHAPTER 12 SINGLE-FAMILY RESIDENTIAL DETACHED AND ATTACHED, R-7

12.030 PERMITTED USES

The following uses are permitted outright in this zone.

- 1. Single-family detached residential unit.***

RESPONSE: The proposed use is single-family detached residential units, a use permitted outright in the R-7 zone. The applicant's proposal satisfies the requirements of this section.

12.070 DIMENSIONAL REQUIREMENTS, USES PERMITTED OUTRIGHT AND USES PERMITTED UNDER PRESCRIBED CONDITIONS

Except as may be otherwise provided by the provisions of this code, the following are the requirements for uses within this zone:

- A. The minimum lot size shall be:**
 - 1. For a single-family detached unit, 7,000 square feet.**
- B. The minimum front lot line length or the minimum lot width at the front lot line shall be 35 feet.**
- C. The average minimum lot width shall be 35 feet.**

RESPONSE: The sizes of the twelve (12) lots proposed in the subdivision are between 7,004 square feet, and 9,744 square feet, with an average lot size of 7,490 square feet. As such, all twelve (12) lots meet or exceed the 7,000-square foot minimum lot size. All proposed front lot lines will meet or exceed the 35-foot minimum front lot line length, as well as the minimum average lot width of 35 feet. Therefore, all twelve (12) lots comply with the above criteria.

- E. The minimum yard dimensions or minimum building setback areas from the lot line shall be:**
 - 1. For the front yard, 20 feet, except for steeply sloped lots where the provisions of CDC [41.010](#) shall apply.**
 - 2. For an interior side yard, seven and one-half feet.**
 - 3. For a side yard abutting a street, 15 feet.**
 - 4. For a rear yard, 20 feet.**
- F. The maximum building height shall be 35 feet, except for steeply sloped lots in which case the provisions of CDC [41.010](#) shall apply.**
- G. The maximum lot coverage shall be 35 percent.**
- H. The minimum width of an accessway to a lot which does not abut a street or a flag lot shall be 15 feet.**
- I. The maximum floor area ratio shall be 0.45. Type I and II lands shall not be counted toward lot area when determining allowable floor area ratio, except that a minimum floor area ratio of 0.30 shall be allowed regardless of the classification of lands within the property. That 30 percent shall be based upon the entire property including Type I and II lands. Existing residences in excess of this standard may be replaced to their prior dimensions when damaged without the requirement that the homeowner obtain a non-conforming structures permit under Chapter [66](#) CDC.**
- J. The sidewall provisions of Chapter [43](#) CDC shall apply.**

RESPONSE: No homes are being proposed at this time. All Yard dimensions, building height, lot coverage, floor area ratios and sidewall provisions will be verified at time of building permit submittal.

CHAPTER 48 – ACCESS, EGRESS AND CIRCULATION

48.025 ACCESS CONTROL

- A. Purpose. The following access control standards apply to public, industrial, commercial and residential developments including land divisions. Access shall be managed to maintain an adequate level of service and to maintain the functional classification of roadways as required by the West Linn Transportation System Plan.**
- B. Access control standards.**
- 1. Traffic impact analysis requirements. The City or other agency with access jurisdiction may require a traffic study prepared by a qualified professional to determine access, circulation and other transportation requirements.**

RESPONSE: The City has not required a traffic impact analysis due to the small size and low impacts of the proposed development.

- 2. The City or other agency with access permit jurisdiction may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared driveways), development of a frontage street, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the street and highway system. Access to and from off-street parking areas shall not permit backing onto a public street.**

RESPONSE: Each lot on the property will include a driveway to provide access to/from either Weahterhill Rd. and/or Satter St., which are both public streets adjacent to the site with a local designation. The City's spacing standards for driveways along residential streets has been maintained for all new driveway access locations. The proposed configuration will create a safe and efficient access configuration for each new driveway.

- 3. Access options. When vehicle access is required for development (i.e., for off-street parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods (planned access shall be consistent with adopted public works standards and TSP). These methods are "options" as approved by the City Engineer.**
 - a) Option 1. Access is from an existing or proposed alley or mid-block lane. If a property has access to an alley or lane, direct access to a public street is not permitted.**
 - b) Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., "shared driveway"). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.**

- c) Option 3. Access is from a public street adjacent to the development lot or parcel. If practicable, the owner/developer may be required to close or consolidate an existing access point as a condition of approving a new access. Street accesses shall comply with the access spacing standards in subsection (B)(6) of this section.**

RESPONSE: The Applicant is proposing access to the site via Option 3. The proposed design limits curb cuts for access to the new lots proposed within this development. Each lot will take access to either Weatherhill Rd. or Satter St. via individual driveways. The City's spacing standards for driveways along residential streets has been maintained for all new driveway access locations. The proposed configuration will create a safe and efficient access configuration for each new driveway.

- 4. Subdivisions fronting onto an arterial street. New residential land divisions fronting onto an arterial street shall be required to provide alleys or secondary (local or collector) streets for access to individual lots. When alleys or secondary streets cannot be constructed due to topographic or other physical constraints, access may be provided by consolidating driveways for clusters of two or more lots (e.g., includes flag lots and mid-block lanes).**

RESPONSE: The proposed development does not front onto an arterial street. The requirements of this section do not apply.

- 5. Double-frontage lots. When a lot or parcel has frontage onto two or more streets, access shall be provided first from the street with the lowest classification. For example, access shall be provided from a local street before a collector or arterial street. When a lot or parcel has frontage opposite that of the adjacent lots or parcels, access shall be provided from the street with the lowest classification.**

RESPONSE: No double fronted lots will be created as part of this subdivision.

- 6. Access spacing.**

- a. The access spacing standards found in the adopted Transportation System Plan (TSP) shall be applicable to all newly established public street intersections and non-traversable medians. Deviation from the access spacing standards may be granted by the City Engineer if conditions are met as described in the access spacing variances section in the adopted TSP.**

- b. Private drives and other access ways are subject to the requirements of CDC 48.060.**

RESPONSE: The Applicant's proposed driveway locations are shown on the site plan (see Sheet 7). The City's access spacing requirements for new driveways onto a residential local street have been maintained.

- 7. Number of access points. For single-family (detached and attached), two-family, and duplex housing types, one street access point is permitted per lot or parcel, when alley access cannot otherwise be provided; except that two access points may be permitted corner lots (i.e., no more than one access per street), subject to the access spacing standards in subsection (B)(6) of this section. The number of street access points for multiple family, commercial, industrial, and public/institutional**

developments shall be minimized to protect the function, safety and operation of the street(s) and sidewalk(s) for all users. Shared access may be required, in conformance with subsection (B)(8) of this section, in order to maintain the required access spacing, and minimize the number of access points.

RESPONSE: The Applicant is proposing only one access point for each single-family lot. New driveways will be created for all 12 lots.

8. Shared driveways. *The number of driveway and private street intersections with public streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The City shall require shared driveways as a condition of land division or site design review, as applicable, for traffic safety and access management purposes in accordance with the following standards:*

- a. Shared driveways and frontage streets may be required to consolidate access onto a collector or arterial street. When shared driveways or frontage streets are required, they shall be stubbed to adjacent developable parcels to indicate future extension. "Stub" means that a driveway or street temporarily ends at the property line, but may be extended in the future as the adjacent lot or parcel develops. "Developable" means that a lot or parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).*
- b. Access easements (i.e., for the benefit of affected properties) shall be recorded for all shared driveways, including pathways, at the time of final plat approval or as a condition of site development approval.*
- c. Exception. Shared driveways are not required when existing development patterns or physical constraints (e.g., topography, lot or parcel configuration, and similar conditions) prevent extending the street/driveway in the future.*

RESPONSE: The Applicant is not proposing any shared driveways for the development.

C. Street connectivity and formation of blocks required. *In order to promote efficient vehicular and pedestrian circulation throughout the City, land divisions and large site developments shall produce complete blocks bounded by a connecting network of public and/or private streets, in accordance with the following standards:*

- 1. Block length and perimeter. The maximum block length shall not exceed 800 feet or 1,800 feet along an arterial.*
- 2. Street standards. Public and private streets shall also conform to Chapter 92 CDC, Required Improvements, and to any other applicable sections of the West Linn Community Development Code and approved TSP.*
- 3. Exception. Exceptions to the above standards may be granted when blocks are divided by one or more pathway(s), in conformance with the provisions of CDC 85.200(C), Pedestrian and Bicycle Trails, or cases where extreme topographic (e.g., slope, creek, wetlands, etc.) conditions or compelling functional limitations preclude*

implementation, not just inconveniences or design challenges.

RESPONSE: No new roads are being proposed as part of the subdivision. Satter Street is currently stubbed at the western boundary of the site. With this proposal the applicant will be extending Satter Street through the site from west to east and stubbing the street at the eastern boundary of the site for future extension.

The existing block length along Weatherhill Rd. between the center-line of Satter Street and De Vries Way is 584 feet. With the extension of Satter Street through the site, it will allow for the future extension of the street through the neighbor's property where it will be connected with the existing Satter Street stub located in the Weatherhill Estates subdivision. Once Satter Street is connected between the Weatherhill Subdivision and the Weatherhill Estates Subdivision, a block length will be established that is 926 feet in length. When the property to the east of the subject property redevelops, there will be an opportunity to establish a new block length of 800-feet by creating a new street connection with Weatherhill Road.

Existing development patterns and topographic conditions preclude the extension of any new roadways through the site or within close proximity which could logically provide for future connectivity. Furthermore, Figure 12 of the West Linn Transportation System Plan – Recommended Local Street Connectivity Projects – does not identify a new street connection within or adjacent to this site. All street standards will be met as shown in the submitted plan set.

48.030 MINIMUM VEHICULAR REQUIREMENTS FOR RESIDENTIAL USES

- A. Direct individual access from single-family dwellings and duplex lots to an arterial street, as designated in the transportation element of the Comprehensive Plan, is prohibited for lots or parcels created after the effective date of this code where an alternate access is either available or is expected to be available by imminent development application. Evidence of alternate or future access may include temporary cul-de-sacs, dedications or stubouts on adjacent lots or parcels, or tentative street layout plans submitted at one time by adjacent property owner/developer or by the owner/developer, or previous owner/developer, of the property in question.***

In the event that alternate access is not available as determined by the Planning Director and City Engineer, access may be permitted after review of the following criteria:

- 1. Topography.***
- 2. Traffic volume to be generated by development (i.e., trips per day).***
- 3. Traffic volume presently carried by the street to be accessed.***
- 4. Projected traffic volumes.***
- 5. Safety considerations such as line of sight, number of accidents at that location, emergency vehicle access, and ability of vehicles to exit the site without backing into traffic.***

6. *The ability to consolidate access through the use of a joint driveway.*
7. *Additional review and access permits may be required by State or County agencies.*

RESPONSE: The Applicant is not proposing new access to any arterials; therefore, this subsection does not apply.

- B. *When any portion of any house is less than 150 feet from the adjacent right-of-way, access to the home is as follows:*
 1. *One single-family residence, including residences with an accessory dwelling unit as defined in CDC 02.030, shall provide 10 feet of unobstructed horizontal clearance. Dual-track or other driveway designs that minimize the total area of impervious driveway surface are encouraged.*
 2. *Two to four single-family residential homes equals a 14- to 20-foot-wide paved or all weather surface. Width shall depend upon adequacy of line of sight and number of homes.*
 3. *Maximum driveway grade shall be 15 percent. The 15 percent shall be measured along the centerline of the driveway only. Variations require approval of a Class II variance by the Planning Commission pursuant to Chapter 75 CDC. Regardless, the last 18 feet in front of the garage shall be under 12 percent grade as measured along the centerline of the driveway only. Grades elsewhere along the driveway shall not apply.*
 4. *The driveway shall include a minimum of 20 feet in length between the garage door and the back of sidewalk, or, if no sidewalk is proposed, to the paved portion of the right-of-way.*
- C. *When any portion of one or more homes is more than 150 feet from the adjacent right-of-way, the provisions of subsection B of this section shall apply in addition to the following provisions.*
 1. *A turnaround may be required as prescribed by the Fire Chief.*
 2. *Minimum vertical clearance for the driveway shall be 13 feet, six inches.*
 3. *A minimum centerline turning radius of 45 feet is required unless waived by the Fire Chief.*
 4. *There shall be sufficient horizontal clearance on either side of the driveway so that the total horizontal clearance is 20 feet.*
- D. *Access to five or more single-family homes shall be by a street built to full construction code standards. All streets shall be public. This full street provision may only be waived by variance.*
- E. *Access and/or service drives for multi-family dwellings shall be fully improved with hard surface pavement:*
 1. *With a minimum of 24-foot width when accommodating two-way traffic; or*

2. *With a minimum of 15-foot width when accommodating one-way traffic. Horizontal clearance shall be two and one-half feet wide on either side of the driveway.*
 3. *Minimum vertical clearance of 13 feet, six inches.*
 4. *Appropriate turnaround facilities per Fire Chief's standards for emergency vehicles when the drive is over 150 feet long. Fire Department turnaround areas shall not exceed seven percent grade unless waived by the Fire Chief.*
 5. *The grade shall not exceed 10 percent on average, with a maximum of 15 percent.*
 6. *A minimum centerline turning radius of 45 feet for the curve.*
- F. *Where on-site maneuvering and/or access drives are necessary to accommodate required parking, in no case shall said maneuvering and/or access drives be less than that required in Chapters 46 and 48 CDC.*
 - G. *The number of driveways or curb cuts shall be minimized on arterials or collectors. Consolidation or joint use of existing driveways shall be required when feasible.*
 - H. *In order to facilitate through traffic and improve neighborhood connections, it may be necessary to construct a public street through a multi-family site.*
 - I. *Gated accessways to residential development other than a single-family home are prohibited.*

RESPONSE: Access to each lot will be provided to/from either Weatherhill Rd. or Satter St., which are both local residential streets, and will meet the minimum vehicular requirements of this subsection.

48.060 WIDTH AND LOCATION OF CURB CUTS AND ACCESS SEPARATION REQUIREMENTS

- A. *Minimum curb cut width shall be 16 feet.*
- B. *Maximum curb cut width shall be 36 feet, except along Highway 43 in which case the maximum curb cut shall be 40 feet. For emergency service providers, including fire stations, the maximum shall be 50 feet.*
- C. *No curb cuts shall be allowed any closer to an intersecting street right-of-way line than the following:*
 1. *On an arterial when intersected by another arterial, 150 feet.*
 2. *On an arterial when intersected by a collector, 100 feet.*
 3. *On an arterial when intersected by a local street, 100 feet.*
 4. *On a collector when intersecting an arterial street, 100 feet.*

5. *On a collector when intersected by another collector or local street, 35 feet.*
 6. *On a local street when intersecting any other street, 35 feet.*
- D.** *There shall be a minimum distance between any two adjacent curb cuts on the same side of a public street, except for one-way entrances and exits, as follows:*
1. *On an arterial street, 150 feet.*
 2. *On a collector street, 75 feet.*
 3. *Between any two curb cuts on the same lot or parcel on a local street, 30 feet.*
- E.** *A rolled curb may be installed in lieu of curb cuts and access separation requirements.*
- F.** *Curb cuts shall be kept to the minimum, particularly on Highway 43. Consolidation of driveways is preferred. The standard on Highway 43 is one curb cut per business if consolidation of driveways is not possible.*
- G.** *Adequate line of sight pursuant to engineering standards should be afforded at each driveway or accessway.*

RESPONSE: All streets serving the subdivision are local residential streets. All proposed curb cuts will meet the spacing requirements of this section and will be confirmed during the construction plan review prior to commencing construction of the subdivision.

CHAPTER 85 GENERAL PROVISIONS

85.170 SUPPLEMENTAL SUBMITTAL REQUIREMENTS FOR TENTATIVE SUBDIVISION OR PARTITION PLAN

- B. Transportation.**
1. *Centerline profiles with extensions shall be provided beyond the limits of the proposed subdivision to the point where grades meet, showing the finished grade of streets and the nature and extent of street construction. Where street connections are not proposed within or beyond the limits of the proposed subdivision on blocks exceeding 330 feet, or for cul-de-sacs, the tentative plat or partition shall indicate the location of easements that provide connectivity for bicycle and pedestrian use to accessible public rights-of-way.*
 2. **Traffic Impact Analysis (TIA).**
 - a. ***Purpose.** The purpose of this section of the code is to implement Section 660-012-0045(2)(e) of the State Transportation Planning Rule that requires the City to adopt a process to apply conditions to development proposals in order to minimize adverse impacts to and protect transportation facilities. This section establishes the standards for when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Analysis must be submitted with a development application in order to*

determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a Traffic Impact Study; and who is qualified to prepare the study.

- b. Typical average daily trips. The latest edition of the Trip Generation manual, published by the Institute of Transportation Engineers (ITE) shall be used as the standards by which to gauge average daily vehicle trips.*
- c. Traffic impact analysis requirements.*
 - 1) Preparation. A Traffic Impact Analysis shall be prepared by a professional engineer qualified under OAR 734-051-0040. The City shall commission the traffic analysis and it will be paid for by the applicant.*
 - 2) Transportation Planning Rule compliance. See CDC 105.050(D), Transportation Planning Rule Compliance.*
 - 3) Pre-application conference. The applicant will meet with West Linn Public Works prior to submitting an application that requires a traffic impact application. This meeting will determine the required elements of the TIA and the level of analysis expected.*

RESPONSE: The Applicant is not proposing a change in zoning or a plan amendment designation as a part of this land use application, therefore a Traffic Impact Analysis (TIA) is not required per this subsection.

C. Grading.

- 1. If areas are to be graded, a plan showing the location of cuts, fill, and retaining walls, and information on the character of soils shall be provided. The grading plan shall show proposed and existing contours at intervals per CDC 85.160(E)(2).*
- 2. The grading plan shall demonstrate that the proposed grading to accommodate roadway standards and create appropriate building sites is the minimum amount necessary.*
- 3. The grading plan must identify proposed building sites and include tables and maps identifying acreage, location and type of development constraints due to site characteristics such as slope, drainage and geologic hazards. For Type I, II, and III lands (refer to definitions in Chapter 02 CDC), the applicant must provide a geologic report, with text, figures and attachments as needed to meet the industry standard of practice, prepared by a certified engineering geologist and/or a geotechnical professional engineer, that includes:*
 - a. Site characteristics, geologic descriptions and a summary of the site investigation conducted;*
 - b. Assessment of engineering geological conditions and factors;*

- c. ***Review of the City of West Linn’s Natural Hazard Mitigation Plan and applicability to the site; and***
- d. ***Conclusions and recommendations focused on geologic constraints for the proposed land use or development activity, limitations and potential risks of development, recommendations for mitigation approaches and additional work needed at future development stages including further testing and monitoring.***

RESPONSE: As part of the application materials, the applicant has provided a grading and erosion control plan (see Sheet 10) showing the locations of cuts, fills, and retaining walls. The Applicant has also provided a detailed Geotechnical report that provides information on the character of the soils. Together, these documents demonstrate that the proposed grading plan to accommodate roadway standards and create appropriate building sites is the minimum amount necessary given the sites topographic and soil conditions. The Applicant’s proposal satisfies the above criteria and will be further reviewed with the civil plans prior to commencing any construction.

D. Water.

1. ***A plan for domestic potable water supply lines and related water service facilities, such as reservoirs, etc., shall be prepared by a licensed engineer consistent with the adopted Comprehensive Water System Plan and most recently adopted updates and amendments.***
2. ***Location and sizing of the water lines within the development and off-site extensions. Show on-site water line extensions in street stubouts to the edge of the site, or as needed to complete a loop in the system.***
3. ***Adequate looping system of water lines to enhance water quality.***
4. ***For all non-single-family developments, calculate fire flow demand of the site and demonstrate to the Fire Chief. Demonstrate to the City Engineer how the system can meet the demand.***

RESPONSE: A utility plan has been submitted by the Applicant as part of the overall application materials. The utility plan shows the location and sizing of the water lines, as well as on-site water line extensions in street stubouts to the edge of the site, or as needed to complete a loop in the system. All proposed water improvements are included on the utility plan (see Sheet 11) of the land use application.

E. Sewer.

1. ***A plan prepared by a licensed engineer shall show how the proposal is consistent with the Sanitary Sewer Master Plan and subsequent updates and amendments. Agreement with that plan must demonstrate how the sanitary sewer proposal will be accomplished and how it is efficient. The sewer system must be in the correct zone.***
2. ***Sanitary sewer information will include plan view of the sanitary sewer lines, including manhole locations and depths. Show how each lot or parcel would be sewerred.***

3. ***Sanitary sewer lines shall be located in the public right-of-way, particularly the street, unless the applicant can demonstrate why the alternative location is necessary and meets accepted engineering standards.***
4. ***Sanitary sewer line should be at a depth that can facilitate connection with downsystem properties in an efficient manner.***
5. ***The sanitary sewer line should be designed to minimize the amount of lineal feet in the system.***
6. ***The sanitary sewer line shall minimize disturbance of natural areas and, in those cases where that is unavoidable, disturbance shall be mitigated pursuant to the appropriate chapters (e.g., Chapter 32 CDC, Water Resource Area Protection).***
7. ***Sanitary sewer shall be extended or stubbed out to the next developable subdivision or a point in the street that allows for reasonable connection with adjacent or nearby properties.***
8. ***The sanitary sewer system shall be built pursuant to Department of Environmental Quality (DEQ), City, and Tri-City Service District sewer standards. This report should be prepared by a licensed engineer, and the applicant must be able to demonstrate the ability to satisfy these submittal requirements or standards at the pre-construction phase.***

RESPONSE: A utility plan has been submitted by the Applicant as part of the overall application materials. The utility plan shows the location and sizing of the sewer lines. Sanitary sewer will be extended or stubbed out to the next developable subdivision or to a point in the street that allows for reasonable connection with adjacent or nearby properties. The proposed sanitary sewer lines will be located to minimize disturbance of natural areas; however, in those cases where that is unavoidable, disturbances will be kept to a minimum and mitigated pursuant to Chapter 32 of the Community Development Code (CDC), Water Resource Area Protection.

All proposed sewer improvements will be built pursuant to DEQ, City, and Tri-City Service District standards, and those improvements are included on the utility plan (see Sheet 11) of the land use application.

- F. ***Storm. A proposal shall be submitted for storm drainage and flood control including profiles of proposed drainageways with reference to the most recently adopted Storm Drainage Master Plan.***

RESPONSE: A utility plan has been submitted by the Applicant as part of the overall application materials. The utility plan shows the location and sizing of the stormwater lines. The public stormwater plan will include LIDA storm planters in the right-of-way for treatment and detention for the street. Individual LIDA planters will also be located on each lot for the treatment/detention of the future homes according to City requirements. All proposed storm drainage improvements are included on the utility plan (see Sheet 11) of the land use application.

85.180 REDIVISION PLAN REQUIREMENT

A redivision plan shall be required for a partition or subdivision, where the property could be developed at a higher density, under existing/proposed zoning, if all services were available and adequate to serve the use.

RESPONSE: The property is being developed at the highest density allowed under applicable zoning, therefore a redivision plan is not required.

85.200 APPROVAL CRITERIA

No tentative subdivision or partition plan shall be approved unless adequate public facilities will be available to provide service to the partition or subdivision area prior to final plat approval and the Planning Commission or Planning Director, as applicable, finds that the following standards have been satisfied, or can be satisfied by condition of approval.

A. Streets.

- 1. General. The location, width and grade of streets shall be considered in their relation to existing and planned streets, to the generalized or reasonable layout of streets on adjacent undeveloped lots or parcels, to topographical conditions, to public convenience and safety, to accommodate various types of transportation (automobile, bus, pedestrian, bicycle), and to the proposed use of land to be served by the streets. The functional class of a street aids in defining the primary function and associated design standards for the facility. The hierarchy of the facilities within the network in regard to the type of traffic served (through or local trips), balance of function (providing access and/or capacity), and the level of use (generally measured in vehicles per day) are generally dictated by the functional class. The street system shall assure an adequate traffic or circulation system with intersection angles, grades, tangents, and curves appropriate for the traffic to be carried. Streets should provide for the continuation, or the appropriate projection, of existing principal streets in surrounding areas and should not impede or adversely affect development of adjoining lands or access thereto.***

To accomplish this, the emphasis should be upon a connected continuous pattern of local, collector, and arterial streets rather than discontinuous curvilinear streets and cul-de-sacs. Deviation from this pattern of connected streets should only be permitted in cases of extreme topographical challenges including excessive slopes (35 percent-plus), hazard areas, steep drainageways, wetlands, etc. In such cases, deviations may be allowed but the connected continuous pattern must be reestablished once the topographic challenge is passed. Streets should be oriented with consideration of the sun, as site conditions allow, so that over 50 percent of the front building lines of homes are oriented within 30 degrees of an east-west axis.

Internal streets are the responsibility of the developer. All streets bordering the development site are to be developed by the developer with, typically, half-street improvements or to City standards prescribed by the City Engineer. Additional travel lanes may be required to be consistent with adjacent road widths or to be consistent with the adopted Transportation System Plan (TSP) and any adopted updated plans.

An applicant may submit a written request for a waiver of abutting street improvements if the TSP prohibits the street improvement for which the waiver is requested. Those areas with numerous (particularly contiguous) under-developed or undeveloped tracts will be required to install street improvements. When an applicant requests a waiver of street improvements and the waiver is granted, the applicant shall pay an in-lieu fee equal to the estimated cost, accepted by the City Engineer, of the otherwise required street improvements. As a basis for this determination, the City Engineer shall consider the cost of similar improvements in recent development projects and may require up to three estimates from the applicant. The amount of the fee shall be established prior to the Planning Commission's decision on the associated application. The in-lieu fee shall be used for in kind or related improvements.

Streets shall also be laid out to avoid and protect tree clusters and significant trees, but not to the extent that it would compromise connectivity requirements per this subsection (A)(1), or bring the density below 70 percent of the maximum density for the developable net area. The developable net area is calculated by taking the total site acreage and deducting Type I and II lands; then up to 20 percent of the remaining land may be excluded as necessary for the purpose of protecting significant tree clusters or stands as defined in CDC 55.100(B)(2).

RESPONSE: This site is located along Weatherhill Road between Satter Street to the west and De Vries Way to the east. All streets, whether existing or proposed, are designated as local streets. The development of this site will not affect the connectivity of these two streets. Aside from the extension of Satter Street through the site, Figure 12 of the West Linn Transportation System Plan – Recommended Local Street Connectivity Projects – does not identify a new street connection within or adjacent to this site.

2. Right-of-way widths shall depend upon which classification of street is proposed. The right-of-way widths are established in the adopted TSP.

RESPONSE: The site abuts Weatherhill Road along the northern property boundary. Satter Street is stubbed to the sites western property boundary. Both streets are designated as local streets. As part of the proposed development, the Applicant will be dedicating 13-feet of right-of-way for Weatherhill street to make necessary improvements along Weatherhill Road. Satter Street is a local street with a 52-foot right-of-way. In an effort to provide on-street parking on one side of Satter Street, the applicant will be widening the right-of-way for Satter Street to 58-feet. Right-of-way for both streets meet the width requirements as determined by their functional classifications.

3. Street widths. Street widths shall depend upon which classification of street is proposed. The classifications and required cross sections are established in the adopted TSP.

The following table identifies appropriate street width (curb to curb) in feet for various street classifications. The desirable width shall be required unless the applicant or his or her engineer can demonstrate that site conditions, topography, or site design require the reduced minimum width. For local streets, a 12-foot travel lane may only be used as a shared local street when the available right-of-way is too narrow to accommodate bike lanes and sidewalks.

RESPONSE: No new streets or roads are proposed with this land use application. Weatherhill Road and Satter Street will continue to meet street width requirements.

4. The decision-making body shall consider the City Engineer's recommendations on the desired right-of-way width, pavement width and street geometry of the various street types within the subdivision after consideration by the City Engineer of the following criteria:

- a. The type of road as set forth in the Transportation Master Plan.**
- b. The anticipated traffic generation.**
- c. On-street parking requirements.**
- d. Sidewalk and bikeway requirements.**
- e. Requirements for placement of utilities.**
- f. Street lighting.**
- g. Drainage and slope impacts.**
- h. Street trees.**
- i. Planting and landscape areas.**
- j. Existing and future driveway grades**
- k. Street geometry.**
- l. Street furniture needs, hydrants.**

RESPONSE: Aside from the 13-foot right-of-way dedication along Weatherhill Rd. and the associated improvements (i.e. sidewalk, planter strip and paving), the pre-application conference notes do not identify the need for any further improvements along Weatherhill Road. Satter Street has been designed to comply with all City standards and specification.

5. Additionally, when determining appropriate street width, the decision-making body shall consider the following criteria:

- a. When a local street is the only street serving a residential area and is expected to carry more than the normal local street traffic load, the designs with two travel and one parking lane are appropriate.**
- b. Streets intended to serve as signed but unstriped bike routes should have the travel lane widened by two feet.**

- c. *Collectors should have two travel lanes and may accommodate some parking. Bike routes are appropriate.*
- d. *Arterials should have two travel lanes. On-street parking is not allowed unless part of a Street Master Plan. Bike lanes are required as directed by the Parks Master Plan and Transportation Master Plan.*

RESPONSE: The proposed development will result in twelve (12) new homes taking access to the existing surrounding transportation system. No arterial streets are adjacent to this proposal.

- 6. ***Reserve strips. Reserve strips or street plugs controlling the access to streets are not permitted unless owned by the City.***

RESPONSE: The Applicant does not propose reserve strips or street plugs with this application. All rights-of-way will be dedicated to the edge of the adjoining properties.

- 7. ***Alignment. All streets other than local streets or cul-de-sacs, as far as practical, shall be in alignment with existing streets by continuations of the centerlines thereof. The staggering of street alignments resulting in "T" intersections shall, wherever practical, leave a minimum distance of 200 feet between the centerlines of streets having approximately the same direction and otherwise shall not be less than 100 feet.***

RESPONSE: Except for extending Satter Street through the site, which will be the continuation of an existing street stub, no new streets or roads are proposed as part of this application.

- 8. ***Future extension of streets. Where necessary to give access to or permit a satisfactory future subdivision of adjoining land, streets shall be extended to the boundary of the subdivision and the resulting dead-end streets may be approved without turnarounds. (Temporary turnarounds built to Fire Department standards are required when the dead-end street is over 100 feet long.)***

RESPONSE: As noted above, Satter Street will be extended through the site as part of the development and stubbed to the sites eastern property boundary to permit the satisfactory subdivision of adjoining land. The Applicant's proposal satisfies this criterion.

- 9. ***Intersection angles. Streets shall be laid out to intersect angles as near to right angles as practical, except where topography requires lesser angles, but in no case less than 60 degrees unless a special intersection design is approved. Intersections which are not at right angles shall have minimum corner radii of 15 feet along right-of-way lines which form acute angles. Right-of-way lines at intersections with arterial streets shall have minimum curb radii of not less than 35 feet. Other street intersections shall have curb radii of not less than 25 feet. All radii shall maintain a uniform width between the roadway and the right-of-way lines. The intersection of more than two streets at any one point will not be allowed unless no alternative design exists.***

RESPONSE: No new intersections are being proposed as part of the Applicant's proposal, therefore, the above criterion does not apply to the Applicant's request.

10. Additional right-of-way for existing streets. Wherever existing street rights-of-way adjacent to or within a tract are of inadequate widths based upon the standards of this chapter, additional right-of-way shall be provided at the time of subdivision or partition.

RESPONSE: The applicant will be dedicating 13-feet of right-of-way for Weatherhill Rd. along the sites frontage.

11. Cul-de-sacs.

- a. *New cul-de-sacs and other closed-end streets (not including stub streets intended to be connected) on sites containing less than five acres, or sites accommodating uses other than residential or mixed use development, are not allowed unless the applicant demonstrates that there is no feasible alternative due to:***
 - 1) *Physical constraints (e.g., existing development, the size or shape of the site, steep topography, or a fish bearing stream or wetland protected by Chapter 32 CDC), or***
 - 2) *Existing easements or leases.***
- b. *New cul-de-sacs and other closed-end streets, consistent with subsection (A)(11)(a) of this section, shall not exceed 200 feet in length or serve more than 25 dwelling units unless the design complies with all adopted Tualatin Valley Fire and Rescue (TVFR) access standards and adequately provides for anticipated traffic, consistent with the Transportation System Plan (TSP).***
- c. *New cul-de-sacs and other closed-end streets (not including stub streets intended to be connected) on sites containing five acres or more that are proposed to accommodate residential or mixed use development are prohibited unless barriers (e.g., existing development, steep topography, or a fish bearing stream or wetland protected by Chapter 32 CDC, or easements, leases or covenants established prior to May 1, 1995) prevent street extensions. In that case, the street shall not exceed 200 feet in length or serve more than 25 dwelling units, and its design shall comply with all adopted TVFR access standards and adequately provide for anticipated traffic, consistent with the TSP.***
- d. *Applicants for a proposed subdivision, partition or a multifamily, commercial or industrial development accessed by an existing cul-de-sac/closed-end street shall demonstrate that the proposal is consistent with all applicable traffic standards and TVFR access standards.***
- e. *All cul-de-sacs and other closed-end streets shall include direct pedestrian and bicycle accessways from the terminus of the street to an adjacent street or pedestrian and bicycle accessways unless the applicant demonstrates that such connections are precluded by physical constraints or that necessary easements cannot be obtained at a reasonable cost.***

- f. All cul-de-sacs/closed-end streets shall terminate with a turnaround built to one of the following specifications (measurements are for the traveled way and do not include planter strips or sidewalks).*

RESPONSE: No cul-de-sacs are proposed as part of this land use application.

- 12. Street names. No street names shall be used which will duplicate or be confused with the names of existing streets within the City. Street names that involve difficult or unusual spellings are discouraged. Street names shall be subject to the approval of the Planning Commission or Planning Director, as applicable. Continuations of existing streets shall have the name of the existing street. Streets, drives, avenues, ways, boulevards, and lanes shall describe through streets. Place and court shall describe cul-de-sacs. Crescent, terrace, and circle shall describe loop or arcing roads.*

RESPONSE: No new streets are proposed as part of this land use application.

- 13. Grades and curves. Grades and horizontal/vertical curves shall meet the West Linn Public Works Design Standards.*

RESPONSE: Any grades and/or horizontal/vertical curves will be designed to meet West Linn Public Works Design Standards.

- 14. Access to local streets. Intersection of a local residential street with an arterial street may be prohibited by the decision-making authority if suitable alternatives exist for providing interconnection of proposed local residential streets with other local streets. Where a subdivision or partition abuts or contains an existing or proposed major arterial street, the decision-making authority may require marginal access streets, reverse-frontage lots with suitable depth, visual barriers, noise barriers, berms, no-access reservations along side and rear property lines, and/or other measures necessary for adequate protection of residential properties from incompatible land uses, and to ensure separation of through traffic and local traffic.*

RESPONSE: The property does not abut nor contain an existing or proposed arterial street.

- 15. Alleys. Alleys shall be provided in commercial and industrial districts unless other permanent provisions for access to off-street parking and loading facilities are made as approved by the decision-making authority. While alley intersections and sharp changes in alignment should be avoided, the corners of necessary alley intersections shall have radii of not less than 10 feet. Alleys may be provided in residential subdivisions or multi-family projects. The decision to locate alleys shall consider the relationship and impact of the alley to adjacent land uses. In determining whether it is appropriate to require alleys in a subdivision or partition, the following factors and design criteria should be considered:*

- a. The alley shall be self-contained within the subdivision. The alley shall not abut undeveloped lots or parcels which are not part of the project proposal. The alley will not stub out to abutting undeveloped parcels which are not part of the project proposal.*

- b. The alley will be designed to allow unobstructed and easy surveillance by residents and police.*
- c. The alley should be illuminated. Lighting shall meet the West Linn Public Works Design Standards.*
- d. The alley should be a semi-private space where strangers are tacitly discouraged.*
- e. Speed bumps may be installed in sufficient number to provide a safer environment for children at play and to discourage through or speeding traffic.*
- f. Alleys should be a minimum of 14 feet wide, paved with no curbs.*

RESPONSE: No alleys are proposed as part of this land use application.

16. Sidewalks. Sidewalks shall be installed per CDC 92.010(H), Sidewalks. The residential sidewalk width is six feet plus planter strip as specified below. Sidewalks in commercial zones shall be constructed per subsection (A)(3) of this section. See also subsection C of this section. Sidewalk width may be reduced with City Engineer approval to the minimum amount (e.g., four feet wide) necessary to respond to site constraints such as grades, mature trees, rock outcroppings, etc., or to match existing sidewalks or right-of-way limitations.

RESPONSE: The applicant proposes to install a sidewalk along the sites Weatherhill Rd. frontage, as well as provide sidewalks along both sides of Satter St. with the extension of the street through the site.

17. Planter strip. *The planter strip is between the curb and sidewalk providing space for a grassed or landscaped area and street trees. The planter strip shall be at least 6 feet wide to accommodate a fully matured tree without the boughs interfering with pedestrians on the sidewalk or vehicles along the curbline. Planter strip width may be reduced or eliminated, with City Engineer approval, when it cannot be corrected by site plan, to the minimum amount necessary to respond to site constraints such as grades, mature trees, rock outcroppings, etc., or in response to right-of-way limitations.*

RESPONSE: The applicant proposes to install a planter strip along the sites Weatherhill Rd. frontage, as well as provide planter strips along both sides of Satter St. with the extension of the street through the site.

18. Streets and roads shall be dedicated without any reservations or restrictions.

RESPONSE: No reservations or restrictions are being proposed with the street dedications.

19. All lots in a subdivision shall have access to a public street. Lots created by partition may have access to a public street via an access easement pursuant to the standards and limitations set forth for such accessways in Chapter 48 CDC.

RESPONSE: All proposed lots created by the subdivision in this land use application will have access to a public street per City requirements.

20. Gated streets. Gated streets are prohibited in all residential areas on both public and private streets. A driveway to an individual home may be gated.

RESPONSE: No gated streets are being proposed as part of this land use application.

21. Entryway treatments and street isle design. *When the applicant desires to construct certain walls, planters, and other architectural entryway treatments within a subdivision, the following standards shall apply:*

- a. All entryway treatments except islands shall be located on private property and not in the public right-of-way.*
- b. Planter islands may be allowed provided there is no structure (i.e., brick, signs, etc.) above the curbline, except for landscaping. Landscaped islands shall be set back a minimum of 24 feet from the curbline of the street to which they are perpendicular.*
- c. All islands shall be in public ownership. The minimum aisle width between the curb and center island curbs shall be 14 feet. Additional width may be required as determined by the City Engineer.*
- d. Brick or special material treatments are acceptable at intersections with the understanding that the City will not maintain these sections except with asphalt overlay, and that they must meet the Americans with Disabilities Act (ADA) standards. They shall be laid out to tie into existing sidewalks at intersections.*
- e. Maintenance for any common areas and entryway treatments (including islands) shall be guaranteed through homeowners association agreements, CC&Rs, etc.*
- f. Under Chapter 52 CDC, subdivision monument signs shall not exceed 32 square feet in area.*

RESPONSE: No entryway treatments are being proposed as part of this land use application; therefore, the above criteria do not apply to the applicant's request.

22. Based upon the determination of the City Manager or the Manager's designee, the applicant shall construct or cause to be constructed, or contribute a proportionate share of the costs, for all necessary off-site improvements identified by the transportation analysis commissioned to address CDC 85.170(B)(2) that are required to mitigate impacts from the proposed subdivision. The proportionate share of the costs shall be determined by the City Manager or Manager's designee, who shall assume that the proposed subdivision provides improvements in rough proportion to identified impacts of the subdivision. Off-site transportation improvements will include bicycle and pedestrian improvements as identified in the adopted City of West Linn TSP.

RESPONSE: The City Manager has not identified the need for any off-site improvements related to the development of this property; therefore, the above criterion does not apply to the applicant's proposal.

B. Blocks and lots.

- 1. General. The length, width, and shape of blocks shall be designed with due regard for the provision of adequate building sites for the use contemplated; consideration of the need for traffic safety, convenience, access, circulation, and control; and recognition of limitations and opportunities of topography and solar access.**

RESPONSE: No new roads are proposed as part of this land use application and the block pattern is already established.

- 2. Sizes. The recommended block size is 400 feet in length to encourage greater connectivity within the subdivision. Blocks shall not exceed 800 feet in length between street lines, except for blocks adjacent to arterial streets or unless topographical conditions or the layout of adjacent streets justifies a variation. Designs of proposed intersections shall demonstrate adequate sight distances to the City Engineer's specifications. Block sizes and proposed accesses must be consistent with the adopted TSP. Subdivisions of five or more acres that involve construction of a new street shall have block lengths of no more than 530 feet. If block lengths are greater than 530 feet, accessways on public easements or right-of-way for pedestrians and cyclists shall be provided not more than 330 feet apart. Exceptions can be granted when prevented by barriers such as topography, rail lines, freeways, pre-existing development, leases, easements or covenants that existed prior to May 1, 1995, or by requirements of Titles 3 and 13 of the UGMFP. If streets must cross water features protected pursuant to Title 3 UGMFP, provide a crossing every 800 to 1,200 feet unless habitat quality or the length of the crossing prevents a full street connection.**

RESPONSE: No new roads are proposed as part of this land use application and the block pattern is already established.

- 3. Lot size and shape. Lot or parcel size, width, shape, and orientation shall be appropriate for the location of the subdivision or partition, for the type of use contemplated, for potential utilization of solar access, and for the protection of drainageways, trees, and other natural features. No lot or parcel shall be dimensioned to contain part of an existing or proposed street. All lots or parcels shall be buildable. "Buildable" describes lots that are free of constraints such as wetlands, drainageways, etc., that would make home construction impossible. Lot or parcel sizes shall not be less than the size required by the zoning code unless as allowed by planned unit development (PUD).**

RESPONSE: The proposed lots created through this subdivision are each a minimum of 7,000 square feet in size to accommodate single family detached dwelling units in the R-7 zone. All proposed lots meet or exceed the minimum requirements for front lot line length, lot width and lot depth.

- 4. Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street parking and service facilities required by the type of use proposed.**

RESPONSE: The applicant is proposing residential development for this site, so the above criterion is not applicable to the proposal.

5. ***Access. Access to subdivisions, partitions, and lots shall conform to the provisions of Chapter 48 CDC, Access, Egress and Circulation.***

RESPONSE: The subdivision, as proposed, conforms to the provisions of Chapter 48 CDC.

6. ***Double frontage lots and parcels. Double frontage lots and parcels have frontage on a street at the front and rear property lines. Double frontage lots and parcels shall be avoided except where they are essential to provide separation of residential development from arterial streets or adjacent non-residential activities, or to overcome specific disadvantages of topography and orientation. A planting screen or impact mitigation easement at least 10 feet wide, and across which there shall be no right of access, may be required along the line of building sites abutting such a traffic artery or other incompatible use.***

RESPONSE: This land use application does not include double frontage lots.

7. ***Lot and parcel side lines. The lines of lots and parcels, as far as is practicable, should run at right angles to the street upon which they face, except that on curved streets they should be radial to the curve.***

RESPONSE: All proposed lot lines and side parcel lines run at right angles to the street as far as is practicable.

8. ***Flag lots. Flag lots can be created where it can be shown that no other reasonable street access is possible to achieve the requested land division. A single flag lot shall have a minimum street frontage of 15 feet for its accessway. Where two to four flag lots share a common accessway, the minimum street frontage and accessway shall be eight feet in width per lot. Common accessways shall have mutual maintenance agreements and reciprocal access and utility easements. The following dimensional requirements shall apply to flag lots:***

- a. ***Setbacks applicable to the underlying zone shall apply to the flag lot.***
- b. ***Front yard setbacks may be based on the rear property line of the lot or parcel which substantially separates the flag lot from the street from which the flag lot gains access. Alternately, the house and its front yard may be oriented in other directions so long as some measure of privacy is ensured, or it is part of a pattern of development, or it better fits the topography of the site.***
- c. ***The lot size shall be calculated exclusive of the accessway; the access strip may not be counted towards the area requirements.***
- d. ***The lot depth requirement contained elsewhere in this code shall be measured from the rear property line of the lot or parcel which substantially separates the flag lot from the street from which the flag lot gains access.***
- e. ***As per CDC 48.030, the accessway shall have a minimum paved width of 12 feet.***

- f. If the use of a flag lot stem to access a lot is infeasible because of a lack of adequate existing road frontage, or location of existing structures, the proposed lot(s) may be accessed from the public street by an access easement of a minimum 15-foot width across intervening property.*

RESPONSE: The land use application proposed one (1) flag lot as part of the subdivision. Lot 6 will be configured as a flag lot because no other reasonable street access is possible given the irregular shape of the parent parcel. The proposed flag lot will have 19.8-feet of street frontage for its accessway. As proposed the flag lot complies with all city requirements.

- 9. Large lots or parcels. In dividing tracts into large lots or parcels which, at some future time, are likely to be redivided, the approval authority may:
 - a. Require that the blocks be of such size and shape, and be so divided into building sites, and contain such easements and site restrictions as will provide for extension and opening of streets at intervals which will permit a subsequent division of any tract into lots or parcels of smaller size; or*
 - b. Alternately, in order to prevent further subdivision or partition of oversized and constrained lots or parcels, restrictions may be imposed on the subdivision or partition plat.**

RESPONSE: The proposed lots are not likely to be redivided as the density proposed and the lot sizes proposed are consistent with the maximum allowable density per the site's zoning.

C. Pedestrian and bicycle trails.

- 1. Trails or multi-use pathways shall be installed, consistent and compatible with federal ADA requirements and with the Oregon Transportation Planning Rule, between subdivisions, cul-de-sacs, and streets that would otherwise not be connected by streets due to excessive grades, significant tree(s), and other constraints natural or manmade. Trails shall also accommodate bicycle or pedestrian traffic between neighborhoods and activity areas such as schools, libraries, parks, or commercial districts. Trails shall also be required where designated by the Parks Master Plan.*
- 2. The all-weather surface (asphalt, etc.) trail should be eight feet wide at minimum for bicycle use and six feet wide at minimum for pedestrian use. Trails within 10 feet of a wetland or natural drainageway shall not have an all-weather surface, but shall have a soft surface as approved by the Parks Director. These trails shall be contained within a corridor dedicated to the City that is wide enough to provide trail users with a sense of defensible space. Corridors that are too narrow, confined, or with vegetative cover may be threatening and discourage use. Consequently, the minimum corridor width shall be 20 feet. Sharp curves, twists, and blind corners on the trail are to be avoided as much as possible to enhance defensible space. Deviations from the corridor and trail width are permitted only where topographic and ownership constraints require it.*

3. *Defensible space shall also be enhanced by the provision of a three- to four-foot-high matte black chain link fence or acceptable alternative along the edge of the corridor. The fence shall help delineate the public and private spaces.*
4. *The bicycle or pedestrian trails that traverse multi-family and commercial sites should follow the same defensible space standards but do not need to be defined by a fence unless required by the decision-making authority.*
5. *Except for trails within 10 feet of a wetland or natural drainageway, soft surface or gravel trails may only be used in place of a paved, all-weather surface where it can be shown to the Planning Director that the principal users of the path will be recreational, non-destination-oriented foot traffic, and that alternate paved routes are nearby and accessible.*
6. *The trail grade shall not exceed 12 percent except in areas of unavoidable topography, where the trail may be up to a 15 percent grade for short sections no longer than 50 feet. In any location where topography requires steeper trail grades than permitted by this section, the trail shall incorporate a short stair section to traverse the area of steep grades.*

RESPONSE: Sidewalks are provided along the frontages of the property. No pedestrian or bicycle trails are required.

D. Transit facilities.

1. **The applicant shall consult with Tri-Met and the City Engineer to determine the appropriate location of transit stops, bus pullouts, future bus routes, etc., contiguous to or within the development site. If transit service is planned to be provided within the next two years, then facilities such as pullouts shall be constructed per Tri-Met standards at the time of development. More elaborate facilities, like shelters, need only be built when service is existing or imminent. Additional rights-of-way may be required of developers to accommodate buses.**
2. **The applicant shall make all transit-related improvements in the right-of-way or in easements abutting the development site as deemed appropriate by the City Engineer.**
3. **Transit stops shall be served by striped and signed pedestrian crossings of the street within 150 feet of the transit stop where feasible. Illumination of the transit stop and crossing is required to enhance defensible space and safety. ODOT approval may be required.**
4. **Transit stops should include a shelter structure bench plus eight feet of sidewalk to accommodate transit users, non-transit-related pedestrian use, and wheelchair users. Tri-Met must approve the final configuration.**

RESPONSE: No transit facilities have been identified by Tri-Met or the City Development Engineer adjacent to this property. The above criteria do not apply to the Applicant's proposal.

- E. Grading. Grading of building sites shall conform to the following standards unless physical conditions demonstrate the propriety of other standards:**
- 1. All cuts and fills shall comply with the excavation and grading provisions of the Uniform Building Code and the following:**
 - a. Cut slopes shall not exceed one and one-half feet horizontally to one foot vertically (i.e., 67 percent grade).**
 - b. Fill slopes shall not exceed two feet horizontally to one foot vertically (i.e., 50 percent grade). Please see the following illustration.**
 - 2. The character of soil for fill and the characteristics of lot and parcels made usable by fill shall be suitable for the purpose intended.**
 - 3. If areas are to be graded (more than any four-foot cut or fill), compliance with CDC 85.170(C) is required.**
 - 4. The proposed grading shall be the minimum grading necessary to meet roadway standards, and to create appropriate building sites, considering maximum allowed driveway grades.**
 - 5. Type I lands shall require a report submitted by an engineering geologist, and Type I and Type II lands shall require a geologic hazard report.**
 - 6. Repealed by Ord. 1635.**
 - 7. On land with slopes in excess of 12 percent, cuts and fills shall be regulated as follows:**
 - a. Toes of cuts and fills shall be set back from the boundaries of separate private ownerships at least three feet, plus one-fifth of the vertical height of the cut or fill. Where an exception is required from that requirement, slope easements shall be provided.**
 - b. Cuts shall not remove the toe of any slope where a severe landslide or erosion hazard exists (as described in subsection (G)(5) of this section).**
 - c. Any structural fill shall be designed by a registered engineer in a manner consistent with the intent of this code and standard engineering practices, and certified by that engineer that the fill was constructed as designed.**
 - d. Retaining walls shall be constructed pursuant to Section 2308(b) of the Oregon State Structural Specialty Code.**
 - e. Roads shall be the minimum width necessary to provide safe vehicle access, minimize cut and fill, and provide positive drainage control.**

- 8. Land over 50 percent slope shall be developed only where density transfer is not feasible. The development will provide that:**
- a. At least 70 percent of the site will remain free of structures or impervious surfaces.**
 - b. Emergency access can be provided.**
 - c. Design and construction of the project will not cause erosion or land slippage.**
 - d. Grading, stripping of vegetation, and changes in terrain are the minimum necessary to construct the development in accordance with subsection J of this section.**

RESPONSE: A geotechnical engineering report is included with this submittal. A grading plan has been included in the submitted plans which complies with all criteria of this subsection.

F. Water.

- 1. A plan for domestic water supply lines or related water service facilities shall be prepared consistent with the adopted Comprehensive Water System Plan, plan update, March 1987, and subsequent superseding revisions or updates.**
- 2. Adequate location and sizing of the water lines.**
- 3. Adequate looping system of water lines to enhance water quality.**
- 4. For all non-single-family developments, there shall be a demonstration of adequate fire flow to serve the site.**
- 5. A written statement, signed by the City Engineer, that water service can be made available to the site by the construction of on-site and off-site improvements and that such water service has sufficient volume and pressure to serve the proposed development's domestic, commercial, industrial, and fire flows.**

RESPONSE: The Applicant proposes new water service connections for all proposed lots off of either Weatherhill Road or Sattter Street, which will be extended through the site as part of this application. This proposal is consistent with the adopted Comprehensive Water System Plan. All proposed water improvements are included on the utility plan of the land use application.

G. Sewer.

- 1. A plan prepared by a licensed engineer shall show how the proposal is consistent with the Sanitary Sewer Master Plan (July 1989). Agreement with that plan must demonstrate how the sanitary sewer proposal will be accomplished and how it is gravity-efficient. The sewer system must be in the correct basin and should allow for full gravity service.**
- 2. Sanitary sewer information will include plan view of the sanitary sewer lines, including manhole locations and depth or invert elevations.**
- 3. Sanitary sewer lines shall be located in the public right-of-way, particularly the street, unless the applicant can demonstrate why the alternative location is necessary and meets accepted engineering standards.**

4. ***Sanitary sewer line should be at a depth that can facilitate connection with downsystem properties in an efficient manner.***
5. ***The sanitary sewer line should be designed to minimize the amount of lineal feet in the system.***
6. ***The sanitary sewer line shall avoid disturbance of wetland and drainageways. In those cases where that is unavoidable, disturbance shall be mitigated pursuant to Chapter 32 CDC, Water Resource Area Protection, all trees replaced, and proper permits obtained. Dual sewer lines may be required so the drainageway is not disturbed.***
7. ***Sanitary sewer shall be extended or stubbed out to the next developable subdivision or a point in the street that allows for reasonable connection with adjacent or nearby properties.***
8. ***The sanitary sewer system shall be built pursuant to DEQ, City, and Tri-City Service District sewer standards. The design of the sewer system should be prepared by a licensed engineer, and the applicant must be able to demonstrate the ability to satisfy these submittal requirements or standards at the pre-construction phase.***
9. ***A written statement, signed by the City Engineer, that sanitary sewers with sufficient capacity to serve the proposed development and that adequate sewage treatment plant capacity is available to the City to serve the proposed development.***

RESPONSE: The Applicant proposes new sewer service connections for all proposed lots off of either Weatherhill Road or Sattter Street, which will be extended through the site as part of this application. All proposed sewer improvements are included on the utility plan of the land use application. The proposed sanitary sewer system is consistent with the Sanitary Sewer Master Plan, is in the correct basin and allows for full gravity service.

- H. Storm detention and treatment. All proposed storm detention and treatment facilities comply with the standards for the improvement of public and private drainage systems located in the West Linn Public Works Design Standards, there will be no adverse off-site impacts caused by the development (including impacts from increased intensity of runoff downstream or constrictions causing ponding upstream), and there is sufficient factual data to support the conclusions of the submitted plan.***

RESPONSE: The Applicant's proposed stormwater detention and treatment design will include a public storm treatment/detention system consisting of LIDA storm planters for treatment and detention within the Satter Street right-of-way. The Applicant is also proposing to install individual LIDA planters on each lot for the future homes according to City requirements. All proposed storm drainage improvements are included on the utility plan Sheet 11 of the land use application.

- I. Utility easements. Subdivisions and partitions shall establish utility easements to accommodate the required service providers as determined by the City Engineer. The developer of the subdivision shall make accommodation for cable television wire in all utility trenches and easements so that cable can fully serve the subdivision.***

RESPONSE: The applicant will establish utility easements as determined by the City Engineer and shown on the preliminary plat. All required easements will be recorded with the recording of the final plat.

J. Supplemental provisions.

- 1. Wetland and natural drainageways. Wetlands and natural drainageways shall be protected as required by Chapter 32 CDC, Water Resource Area Protection. Utilities may be routed through the protected corridor as a last resort, but impact mitigation is required.***

RESPONSE: The proposed subdivision does not impact any wetlands. The site does contain the presence of a headwater to a small ephemeral stream on the southern edge of the property. As part of the submitted application materials, the applicant has provided a Phase I Environmental review for the property, as well as a wetland delineation report. An electronic copy of the wetland delineation report has been sent to Oregon Department of State Lands.

As part of the proposed development, the Applicant is proposing to route some utilities (i.e. stormwater and sewer) through the protected corridor and will provide impact mitigation as required by the City.

- 2. Willamette and Tualatin Greenways. The Willamette and Tualatin River Greenways shall be protected as required by Chapter 28 CDC, Willamette and Tualatin River Protection.***

RESPONSE: No greenways exist on this site or have been identified for dedication on this property. This property is not adjacent to the Willamette or Tualatin River and, therefore, a River Greenway is not feasible on this site.

- 3. Street trees. Street trees are required as identified in the appropriate section of the municipal code and Chapter 54 CDC.***

RESPONSE: There are no existing street trees along the sites frontage of Weatherhill Road. The applicant will install street trees as a component of the frontage improvements on Weatherhill Road, as well as along both sides of Satter Street with the extension of the street through the site.

- 4. Lighting. All subdivision street or alley lights shall meet West Linn Public Works Design Standards.***

RESPONSE: The applicant proposes to install new light fixtures along both the sites Weatherhill Rd. frontage, as well as along Satter St. with the extension of the street through the site. All required street lights will provide adequate lighting per current City standards. A photometric plan has been provided for review.

- 5. Dedications and exactions. The City may require an applicant to dedicate land and/or construct a public improvement that provides a benefit to property or persons outside the property that is the subject of the application when the exaction is roughly proportional. No exaction shall be imposed unless supported by a determination that the exaction is roughly proportional to the impact of development.***

RESPONSE: As mentioned previously, the applicant will be dedicating 13-feet of right-of-way along the sites Weatherhill Rd. frontage. Additionally, right-of-way will be dedicated for the extension of Satter St. through the site in accordance with city standards and specifications.

- 6. *Underground utilities. All utilities, such as electrical, telephone, and television cable, that may at times be above ground or overhead shall be buried underground in the case of new development. The exception would be in those cases where the area is substantially built out and adjacent properties have above-ground utilities and where the development site's frontage is under 200 feet and the site is less than one acre. High voltage transmission lines, as classified by Portland General Electric or electric service provider, would also be exempted. Where adjacent future development is expected or imminent, conduits may be required at the direction of the City Engineer. All services shall be underground with the exception of standard above-grade equipment such as some meters, etc.***

RESPONSE: The Applicant's proposal complies with the above criterion because all new utility services are proposed to be located underground as part of the subdivision. With the exception of standard above-grade equipment, all services will be located underground pursuant to city standards and specifications.

- 7. *Density requirement. Density shall occur at 70 percent or more of the maximum density allowed by the underlying zoning. These provisions would not apply when density is transferred from Type I and II lands as defined in CDC 02.030. Development of Type I or II lands are exempt from these provisions. Land divisions of three lots or less would also be exempt.***

RESPONSE: The R-7 zone permits a maximum density of 6.4 dwelling units per net acre. Net acre is defined as "the total gross acres less the public right-of-way and other acreage deductions, as applicable. The net acreage of this site after removal of dedicated right-of-way is 86,255 sq. ft. or 1.98 acres. At 6.4 dwelling units per net acre, the maximum number of dwelling units on this site is 12.32. This proposal is for a 12-lot subdivision. The proposed density for the site is within 70 percent of the maximum allowable density. The requirements of this section have been satisfied.

- 8. *Mix requirement. The "mix" rule means that developers shall have no more than 15 percent of the R-2.1 and R-3 development as single-family residential. The intent is that the majority of the site shall be developed as medium high density multi-family housing.***

RESPONSE: This property is zoned R-7 and, therefore, the use of the parcel as an entirely residential development is permitted.

- 9. *Heritage trees/significant tree and tree cluster protection. All heritage trees, as defined in the municipal code, shall be saved. Diseased heritage trees, as determined by the City Arborist, may be removed at his/her direction. All non-heritage trees and clusters of trees (three or more trees with overlapping dripline; however, native oaks need not have an overlapping dripline) that are considered significant by virtue of their size, type, location, health, or numbers shall be saved pursuant to CDC 55.100(B)(2). Trees are defined per the municipal code as having a trunk six inches in diameter or 19 inches in circumference at a point five feet above the mean ground level at the base of the trunk.***

RESPONSE: The applicant has inventoried all trees on site and has consulted with the City’s arborist to determine which trees on site are significant. The applicant is proposing tree preservation consistent with these requirements, as detailed in the tree protection plan (Sheet 3). The trees identified as significant on this site will be retained with the development of the subdivision.

CHAPTER 92 REQUIRED IMPROVEMENTS FOR ALL DEVELOPMENT

The following improvements shall be installed at the expense of the developer and meet all City codes and standards:

A. Streets within subdivisions.

- 1. All streets within a subdivision, including alleys, shall be graded for the full right-of-way width and improved to the City’s permanent improvement standards and specifications which include sidewalks and bicycle lanes, unless the decision-making authority makes the following findings:**
 - a. The right-of-way cannot be reasonably improved in a manner consistent with City road standards or City standards for the protection of wetlands and natural drainageways.**
 - b. The right-of-way does not provide a link in a continuous pattern of connected local streets, or, if it does provide such a link, that an alternative street link already exists or the applicant has proposed an alternative street which provides the necessary connectivity, or the applicant has proven that there is no feasible location on the property for an alternative street providing the link.**
- 2. When the decision-making authority makes these findings, the decision-making authority may impose any of the following conditions of approval:**
 - a. A condition that the applicant initiate vacation proceedings for all or part of the right-of-way.**
 - b. A condition that the applicant build a trail, bicycle path, or other appropriate way.**

If the applicant initiates vacation proceedings pursuant to subsection (A)(2)(a) of this section, and the right-of-way cannot be vacated because of opposition from adjacent property owners, the City Council shall consider and decide whether to process a City-initiated street vacation pursuant to Chapter 271 ORS.

Construction staging area shall be established and approved by the City Engineer. Clearing, grubbing, and grading for a development shall be confined to areas that have been granted approval in the land use approval process only. Clearing, grubbing, and grading outside of land use approved areas can only be approved through a land use approval modification and/or an approved Building Department grading permit for survey purposes. Catch basins shall be installed and connected to pipe lines leading to storm sewers or drainageways.

RESPONSE: No vacation proceedings are being requested by the Applicant, nor are they being required by the City for the proposed 12-lot subdivision. All proposed streets within the subdivision, will be graded for the full right-of-way width and improved to the City’s permanent improvement standards

and specifications which include sidewalks and bicycle lanes, unless the decision-making authority determines otherwise.

- B. Extension of streets to subdivisions. The extension of subdivision streets to the intercepting paving line of existing streets with which subdivision streets intersect shall be graded for the full right-of-way width and improved to a minimum street structural section and width of 24 feet.**

RESPONSE:

- C. Local and minor collector streets within the rights-of-way abutting a subdivision shall be graded for the full right-of-way width and approved to the City's permanent improvement standards and specifications. The City Engineer shall review the need for street improvements and shall specify whether full street or partial street improvements shall be required. The City Engineer shall also specify the extent of storm drainage improvements required. The City Engineer shall be guided by the purpose of the City's systems development charge program in determining the extent of improvements which are the responsibility of the subdivider.**

RESPONSE: There are not collector streets abutting the proposed subdivision, therefore, the above criterion does not apply to the Applicant's request.

- D. Monuments. Upon completion of the first pavement lift of all street improvements, monuments shall be installed and/or reestablished at every street intersection and all points of curvature and points of tangency of street centerlines with an iron survey control rod. Elevation benchmarks shall be established at each street intersection monument with a cap (in a monument box) with elevations to a U.S. Geological Survey datum that exceeds a distance of 800 feet from an existing benchmark.**

RESPONSE: All required monuments will be installed with the development of the subdivision consistent with the City Standards and Specification pursuant to the above criterion.

- E. Storm detention and treatment. For Type I, II and III lands (refer to definitions in Chapter 02 CDC), a registered civil engineer must prepare a storm detention and treatment plan, at a scale sufficient to evaluate all aspects of the proposal, and a statement that demonstrates:**
- 1. The location and extent to which grading will take place indicating general contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed.**
 - 2. All proposed storm detention and treatment facilities comply with the standards for the improvement of public and private drainage systems located in the West Linn Public Works Design Standards.**
 - 3. There will be no adverse off-site impacts, including impacts from increased intensity of runoff downstream or constrictions causing ponding upstream.**
 - 4. There is sufficient factual data to support the conclusions of the plan.**

5. ***Per CDC 99.035, the Planning Director may require the information in subsections (E)(1), (2), (3) and (4) of this section for Type IV lands if the information is needed to properly evaluate the proposed site plan.***

RESPONSE: The subject property does not contain any Type I, II, III and/or IV lands per the City's definitions in Chapter 02 of the CDC. As such, the above criteria do not apply to the Applicant's proposal.

F. Sanitary sewers. Sanitary sewers shall be installed to City standards to serve the subdivision and to connect the subdivision to existing mains.

1. ***If the area outside the subdivision to be directly served by the sewer line has reached a state of development to justify sewer installation at the time, the Planning Commission may recommend to the City Council construction as an assessment project with such arrangement with the subdivider as is desirable to assure financing his or her share of the construction.***
2. ***If the installation is not made as an assessment project, the City may reimburse the subdivider an amount estimated to be a proportionate share of the cost for each connection made to the sewer by property owners outside of the subdivision for a period of 10 years from the time of installation of the sewers. The actual amount shall be determined by the City Administrator considering current construction costs.***

RESPONSE: As mentioned previously in this narrative, the sanitary sewer lines will be installed to meet all City Standards and Specifications to serve the subdivision. As part of the submitted application materials, the Applicant has provided a detailed composite utility plan on Sheet 11 of the plan set that shows the line sizing and location for the proposed sewer lines.

G. Water system. Water lines with valves and fire hydrants providing service to each building site in the subdivision and connecting the subdivision to City mains shall be installed. Prior to starting building construction, the design shall take into account provisions for extension beyond the subdivision and to adequately grid the City system. Hydrant spacing is to be based on accessible area served according to the City Engineer's recommendations and City standards. If required water mains will directly serve property outside the subdivision, the City may reimburse the developer an amount estimated to be the proportionate share of the cost for each connection made to the water mains by property owners outside the subdivision for a period of 10 years from the time of installation of the mains. If oversizing of water mains is required to areas outside the subdivision as a general improvement, but to which no new connections can be identified, the City may reimburse the developer that proportionate share of the cost for oversizing. The actual amount and reimbursement method shall be as determined by the City Administrator considering current or actual construction costs.

RESPONSE: As mentioned previously in this narrative, the water lines will be installed to meet all City Standards and Specifications to serve the subdivision. As part of the submitted application materials, the Applicant has provided a detailed composite utility plan on Sheet 11 of the plan set that shows the line sizing and location for the proposed water lines. Prior to starting building construction, the Applicant will work with the City's Engineering and Fire Departments to assure the design for the water

system takes into account provisions for extension beyond the subdivision and to adequately grid the City system. Hydrant spacing will also be addressed at that time to make sure they are located in an accessible area pursuant to City Standards.

H. Sidewalks.

- 1. Sidewalks shall be installed on both sides of a public street and in any special pedestrian way within the subdivision, except that in the case of primary or secondary arterials, or special type industrial districts, or special site conditions, the Planning Commission may approve a subdivision without sidewalks if alternate pedestrian routes are available. In the case of the double-frontage lots, provision of sidewalks along the frontage not used for access shall be the responsibility of the developer. Providing front and side yard sidewalks shall be the responsibility of the land owner at the time a request for a building permit is received. Additionally, deed restrictions and CC&Rs shall reflect that sidewalks are to be installed prior to occupancy and it is the responsibility of the lot or homeowner to provide the sidewalk, except as required above for double-frontage lots.**
- 2. On local streets serving only single-family dwellings, sidewalks may be constructed during home construction, but a letter of credit shall be required from the developer to ensure construction of all missing sidewalk segments within four years of final plat approval pursuant to CDC [91.010\(A\)\(2\)](#).**
- 3. The sidewalks shall measure at least six feet in width and be separated from the curb by a six-foot minimum width planter strip. Reductions in widths to preserve trees or other topographic features, inadequate right-of-way, or constraints, may be permitted if approved by the City Engineer in consultation with the Planning Director.**
- 4. Sidewalks should be buffered from the roadway on high volume arterials or collectors by landscape strip or berm of three and one-half-foot minimum width.**
- 5. The City Engineer may allow the installation of sidewalks on one side of any street only if the City Engineer finds that the presence of any of the factors listed below justifies such waiver:**
 - a. The street has, or is projected to have, very low volume traffic density;**
 - b. The street is a dead-end street;**
 - c. The housing along the street is very low density; or**
 - d. The street contains exceptional topographic conditions such as steep slopes, unstable soils, or other similar conditions making the location of a sidewalk undesirable.**

RESPONSE: The Applicant will be installing a sidewalk along the sites Weahterhill Rd. frontage, as well as along both sides of Satter Street with the extension of the street through the site. All proposed and required sidewalks will be installed pursuant to the City’s design standards and specifications. Should the developer choose to install the sidewalks with the construction of the homes, then a letter of credit

will be provided to the City to ensure construction of all missing sidewalks within four years of the final plat approval.

- I. Bicycle routes. If appropriate to the extension of a system of bicycle routes, existing or planned, the Planning Commission may require the installation of separate bicycle lanes within streets and separate bicycle paths.***

RESPONSE: Per the City's Transportation System Plan (TSP) there are no bicycle routes identified, either existing or planned, for the subject property.

- J. Street name signs. All street name signs and traffic control devices for the initial signing of the new development shall be installed by the City with sign and installation costs paid by the developer.***

RESPONSE: All required street signs, whether street names or traffic control signs, will be installed pursuant to the City's Standards and Specifications as outlined in the above criterion. The Applicant is agreeable to paying the installation costs associated with the installation of the required signage.

- K. Dead-end street signs. Signs indicating "future roadway" shall be installed at the end of all discontinued streets. Signs shall be installed by the City per City standards, with sign and installation costs paid by the developer.***

RESPONSE: The Applicant is proposing the terminate Weatherhill Rd. in a "stubbed" street design. A barricade will be installed at the end of the street and any required signage will be installed consistent with the City's development codes.

- L. Signs indicating future use shall be installed on land dedicated for public facilities (e.g., parks, water reservoir, fire halls, etc.). Sign and installation costs shall be paid by the developer.***

RESPONSE: No public facilities are being proposed as part of this development request, therefore, the above criterion does not apply to the Applicant's proposal.

- M. Street lights. Street lights shall be installed and shall be served from an underground source of supply. The street lighting shall meet IES lighting standards. The street lights shall be the shoe-box style light (flat lens) with a 30-foot bronze pole in residential (non-intersection) areas. The street light shall be the cobra head style (drop lens) with an approximate 50-foot (sized for intersection width) bronze pole. The developer shall submit to the City Engineer for approval of any alternate residential, commercial, and industrial lighting, and alternate lighting fixture design. The developer and/or homeowners association is required to pay for all expenses related to street light energy and maintenance costs until annexed into the City.***

RESPONSE: All required street lights will be installed and will be served from an underground source of supply. All required street lighting will meet IES lighting standards and the street light will be the "shoe-box" style light (i.e. flat lens).

- N. Utilities. The developer shall make necessary arrangements with utility companies or other persons or corporations affected for the installation of underground lines and facilities.***

Electrical lines and other wires, including but not limited to communication, street lighting, and cable television, shall be placed underground.

RESPONSE: Consistent with the above criterion, the Applicant's developer will make all necessary arrangements with the franchised utility companies or other persons or corporations affected for the installation of underground lines and facilities. Electrical lines and other wires, including but not limited to communication, street lighting, and cable television, will be placed underground as required by the City's Community Development Code (CDC).

O. Curb cuts and driveways. *Curb cuts and driveway installations are not required of the subdivider at the time of street construction, but, if installed, shall be according to City standards. Proper curb cuts and hard-surfaced driveways shall be required at the time buildings are constructed.*

RESPONSE: All curb cuts and driveway installations will be installed at the time buildings are constructed on the lots. However, should the developer decide to install some curb cuts and driveways at the time of street construction, then, if installed, they will be installed according to City standards.

P. Street trees. *Street trees shall be provided by the City Parks and Recreation Department in accordance with standards as adopted by the City in the Municipal Code. The fee charged the subdivider for providing and maintaining these trees shall be set by resolution of the City Council.*

RESPONSE: The Applicant agrees to install all required street trees pursuant to the above criterion by working with the City's Parks and Recreation Department to obtain the necessary street trees. Additionally, the Applicant is agreeable to paying the fees set by resolution of the City Council for providing and maintain the requires street trees.

Q. Joint mailbox facilities *shall be provided in all residential subdivisions, with each joint mailbox serving at least two, but no more than eight, dwelling units. Joint mailbox structures shall be placed in the street right-of-way adjacent to roadway curbs. Proposed locations of joint mailboxes shall be designated on a copy of the tentative plan of the subdivision, and shall be approved as part of the tentative plan approval. In addition, sketch plans for the joint mailbox structures to be used shall be submitted and approved by the City Engineer prior to final plat approval.*

RESPONSE: The Applicant will work with the US Postal Service (USPS) to identify a strategic location for two (2) joint mailbox facilities to serve the proposed 12-lot subdivision. The joint mailbox facilities will be installed in the street right-of-way adjacent to the roadway curbs. As part of the tentative plan approval, the Applicant requests, as a condition of any final approval, that the required sketch plans for the joint mailbox structures to be used shall be submitted and approved by the City Engineer prior to final plat approval.

92.030 IMPROVEMENT PROCEDURES

In addition to other requirements, improvements installed by the developer, either as a requirement of these regulations or at the developer's own option, shall conform to the requirements of this title and

permanent improvement standards and specifications adopted by the City and shall be installed in accordance with the following procedure:

- A. Improvement work shall not be commenced until plans have been checked for adequacy and approved by the City. To the extent necessary for evaluation of the proposal, the improvement plans may be required before approval of the tentative plan of a subdivision or partition. Plans shall be prepared in accordance with the requirements of the City.*
- B. Improvement work shall not be commenced until the City has been notified in advance, and if work has been discontinued for any reason, it shall not be resumed until the City has been notified.*
- C. Improvements shall be constructed under the Engineer. The City may require changes in typical sections and details in the public interest if unusual conditions arise during construction to warrant the change.*
- D. All underground utilities, sanitary sewers, and storm drains installed in streets by the subdivider or by any utility company shall be constructed prior to the surfacing of the streets. Stubs for service connections for underground utilities and sanitary sewers shall be placed to a length obviating the necessity for disturbing the street improvements when service connections are made.*
- E. A digital and mylar map showing all public improvements as built shall be filed with the City Engineer upon completion of the improvements.*

RESPONSE: All requirements and improvements installed by the developer, either as a requirement of the City's CDC regulations or at the developer's own option, will conform to the requirements of this title and permanent improvement standards and specifications adopted by the City and will be installed in accordance with the above procedures. The Applicant is agreeable, as a condition of any final approval, that all improvements be installed in accordance with all City standards and specifications adopted by the City.

SUMMARY AND CONCLUSION

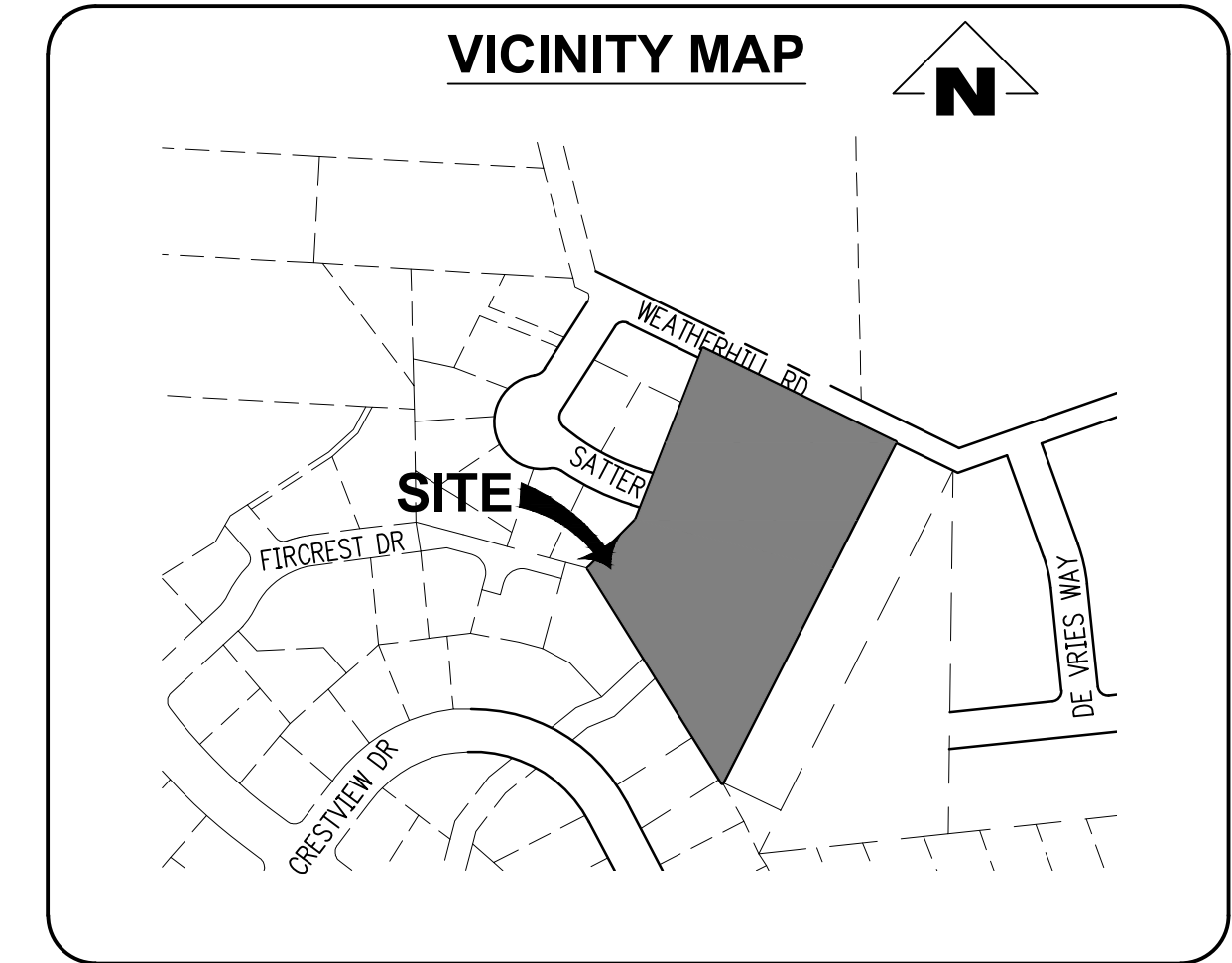
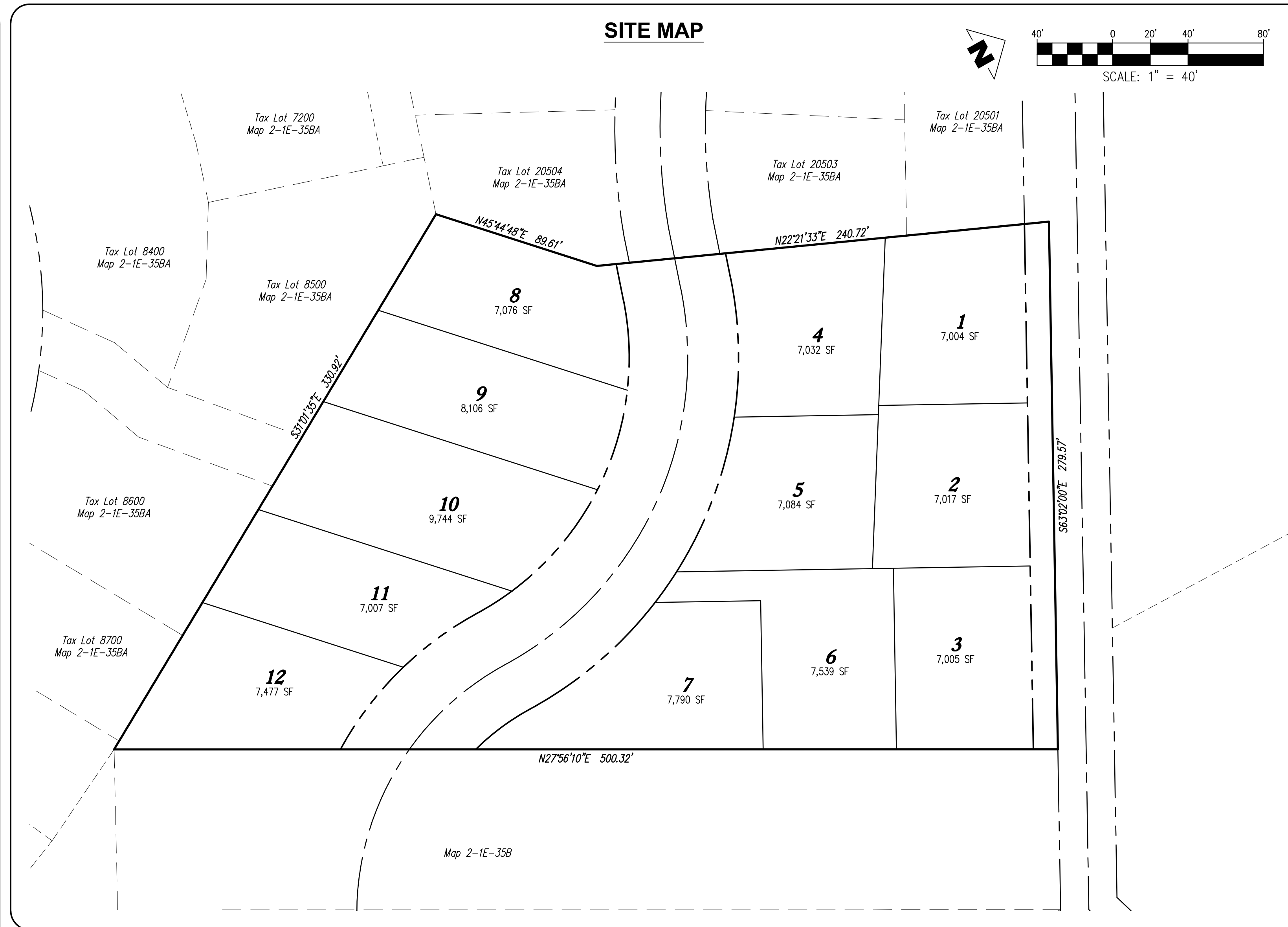
Based upon the application materials submitted herein, the Applicant respectfully requests approval from the City's Planning Department of this application for a 12-lot residential subdivision.

WEATHERHILL ROAD SUBDIVISION

12 LOT SUBDIVISION NW 1/4 SECTION 13, T. 3S, R. 1W, W.M. CITY OF WEST LINN, OREGON

GENERAL LEGEND

	LANDSCAPE HEDGE
	FLOW LINE
	FENCE
	EXISTING MAJOR CONTOUR LINE
	EXISTING MINOR CONTOUR LINE
	PROPOSED MAJOR CONTOUR LINE
	PROPOSED MINOR CONTOUR LINE
	SIGNIFICANT RESOURCE OVERLAY ZONE (SROZ)
	SANITARY SEWER LINE
	STORM DRAIN LINE
	GAS LINE
	WATER LINE
	OVERHEAD UTILITIES LINE
	UNDERGROUND UTILITIES LINE
	COMMUNICATIONS LINE
	ELECTRIC LINE
	FIRE HYDRANT
	AIR RELEASE
	WATER BLOWOFF
	WATER METER/SERVICE
	WATER VAULT
	IRRIGATION SPRINKLER HEAD
	CULVERT / OUTFALL
	STORM DRAIN MANHOLE
	CATCH BASIN / AREA DRAIN
	SANITARY SEWER MANHOLE
	UTILITY MANHOLE
	UTILITY CLEAN OUT
	UTILITY VALVE
	UTILITY POLE
	UTILITY GUY POLE
	UTILITY GUY WIRE
	UTILITY/LIGHT POLE
	LIGHT POLE
	LIGHT POLE WITH ARM
	LIGHT SIGNAL JUNCTION BOX
	JUNCTION BOX
	ELECTRIC METER/SERVICE
	ELECTRIC PEDESTAL
	ELECTRIC VAULT
	TELEPHONE MANHOLE
	COMMUNICATIONS PEDESTAL
	COMMUNICATIONS VAULT
	GAS METER/SERVICE
	GAS PEDESTAL
	DECIDUOUS TREE
	EVERGREEN TREE
	SIGN POST
	MAILBOX
	SIDEWALK TO BE INSTALLED AT TIME OF STREET CONSTRUCTION



DRAWING INDEX

SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	EXISTING CONDITIONS, DEMOLITION, & PH 1 EROSION CONTROL PLAN
3	TREE PRESERVATION PLAN
4	TREE PRESERVATION DETAILS
5	SLOPE ANALYSIS PLAN
6	PRELIMINARY PLAT
7	PRELIMINARY SITE PLAN
8	SATTER STREET PLAN, PROFILE, AND STORM LINE
9	WEATHERHILL ROAD PLAN, PROFILE, AND STORM LINE
10	PHASE 2 GRADING & EROSION CONTROL PLAN
11	COMPOSITE UTILITY PLAN

ENGINEER'S NOTE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

BENCHMARK INFORMATION

THE DATUM FOR THIS SURVEY IS BASED UPON OREGON REAL-TIME GNSS NETWORK (ORGN).

DATUM = NAVD 88

SITE DATA

AREA:	2.57 Ac.
ZONING:	R-7
TAX MAP:	T2SR1E35B
TAX LOT:	405
NO. OF LOTS:	12

NOTICE TO EXCAVATORS:
ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.
(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)-232-1987.)

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.
Call the Oregon One-Call Center
DIAL 811 or 1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS	503-226-4211 Ext.4313
M-F 7am-6pm	503-226-4211
AFTER HOURS	503-464-7777
PGE	1-800-491-0118
CENTURY LINK	1-800-921-8101
FRONTIER	503-635-0238
CITY OF WEST LINN PUBLIC WORKS	

PROJECT CONTACTS

APPLICANT:
ROD FREISEN
22870 WEATHERHILL, LLC
WEST LINN, OR 97068
(971) 235-3314
ROD.FRIESEN@FRONTIER.COM

LAND USE, CIVIL ENGINEER AND SURVEYOR:
EMERIO DESIGN, LLC
6445 SW FALLBROOK PL, SUITE 100
BEAVERTON, OR 97008
LAND USE CONTACT: STEVE MILLER
ENGINEER CONTACT: ERIC EVANS
SURVEYOR CONTACT: KING PHELPS
(503) 746-8812 (P)
(503) 639-9592 (F)

OWNER:
22870 WEATHERHILL, LLC
PARTNERSHIP ADMINISTRATOR:
ROD FREISEN
(971) 235-3314

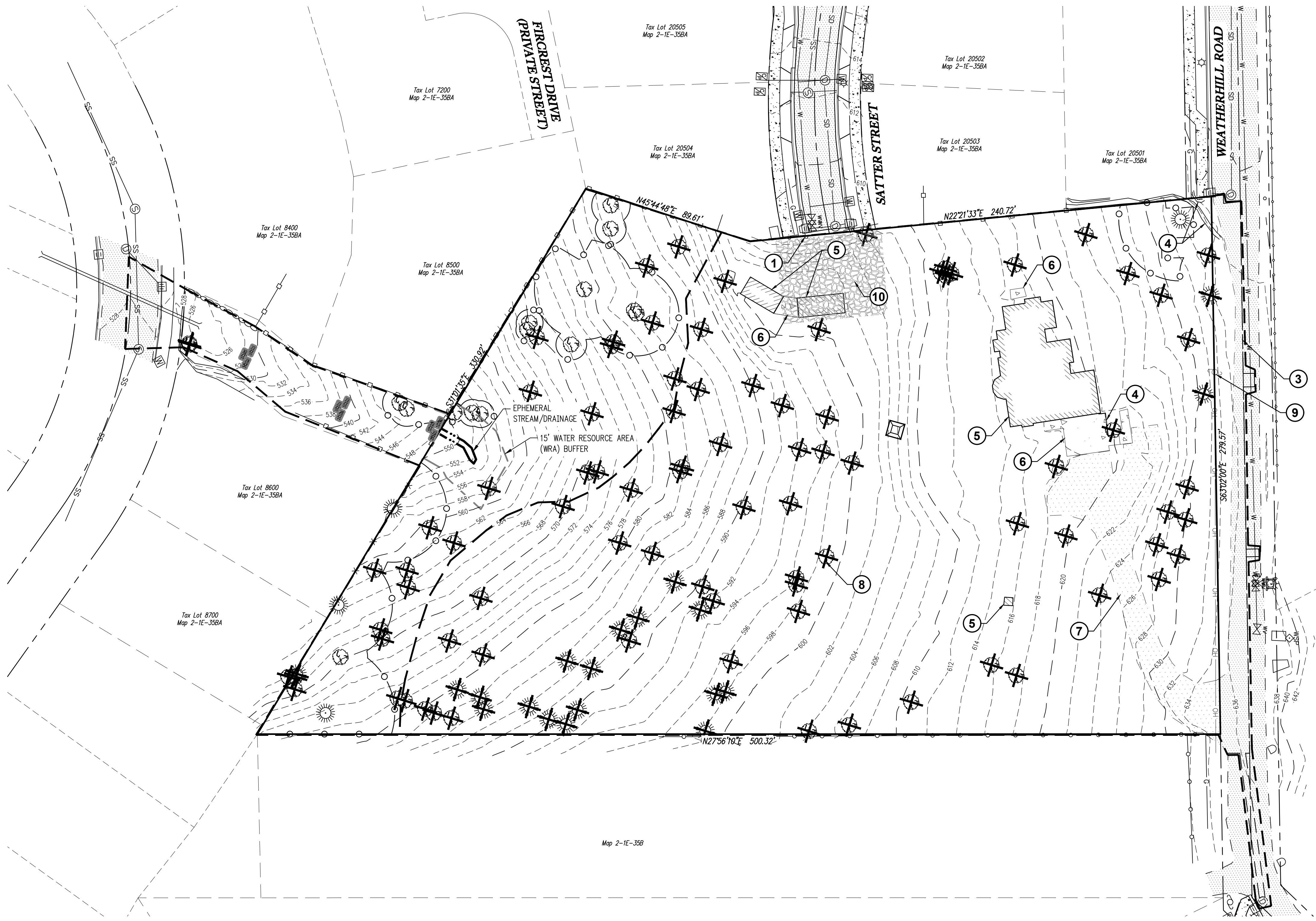
** LOTS 4 THROUGH 12 TO BE CONSTRUCTED WITH FIRE SPRINKLERS UNLESS SATTER STREET IS CONNECTED THROUGH FROM THE EAST PRIOR TO HOME OCCUPANCY.

22870 S WEATHERHILL ROAD
TAX MAP T2S R1E 35B
TAX LOT 405
WEST LINN, OREGON

COVER SHEET

NO.	DATE	DESCRIPTION
0	7/2018	1ST SUBMITTAL

EMERIO Design
6445 SW FALLBROOK PLACE, SUITE 100
BEAVERTON, OREGON 97008
TEL: (503) 746-8812
FAX: (503) 639-9592
www.emeriodesign.com



DEMOLITION KEY NOTES

- ① REMOVE EXISTING END OF ROAD SIGN.
- ② POTHOLE END OF SANITARY LINE AND REMOVE EXISTING PLUG. CONTRACTOR TO NOTIFY ENGINEER IF EXISTING SANITARY INVERT ELEVATION IS DIFFERENT THAN STATED ON THESE PLANS.
- ③ SAWCUT AND REMOVE EXISTING AC.
- ④ REMOVED EXISTING WALL
- ⑤ REMOVED EXISTING BUILDING/STRUCTURE
- ⑥ REMOVE EXISTING CONCRETE AREAS
- ⑦ REMOVE EXISTING AC DRIVEWAY
- ⑧ REMOVE EXISTING TREE (TYP.). SEE SHEET 3 & 4 FOR DETAILED TREE PLANS
- ⑨ REMOVE EXISTING POWER POLE. POWER TO BE UNDERGROUND.
- ⑩ INSTALL CONSTRUCTION ENTRANCE

GENERAL NOTES:

- A. SEE SHEETS 3 AND 4 FOR TREE PRESERVATION PLAN. TREE PROTECTION TO BE INSTALLED BEFORE ANY SITE DEMOLITION, GRUBBING, OR CLEARING.

LEGEND

- BOUNDARY OF SITE
- - - LIMITS OF CONSTRUCTION
- EXISTING FENCE
- - - SILT FENCE
- TREE PROTECTION FENCE

SURVEYOR'S NOTE

THE DATUM FOR THIS SURVEY IS BASED UPON OREGON REAL-TIME GNSS NETWORK (ORGN). NAVD88.

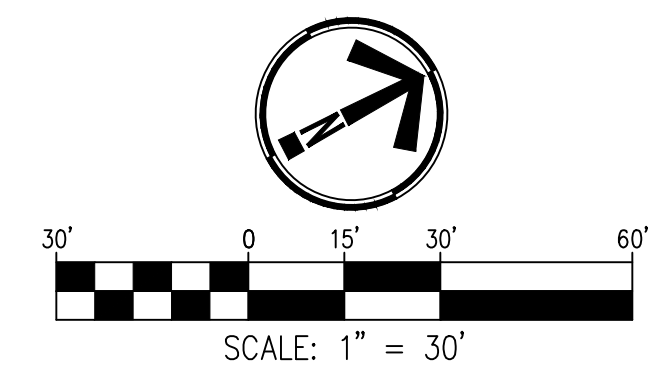
A TOPCON PS104B, TRIMBLE RS INSTRUMENTS WERE USED TO COMPLETE THIS SURVEY.

BOUNDARIES WERE DRAWN PER PLAT AND MONUMENTS FOUND. NO PROPERTY CORNERS WERE SET IN THIS SURVEY.

NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUIESCENCE, ETC.

THE UNDERGROUND UTILITIES AS SHOWN ON THIS MAP HAVE BEEN LOCATED FROM FIELD SURVEY OF ABOVE GROUND STRUCTURES AND AS MARKED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR.

NO TITLE REPORT WAS SUPPLIED OR USED IN THE PREPARATION OF THIS MAP. THERE MAY EXIST EASEMENTS, CONDITIONS, OR RESTRICTIONS THAT COULD AFFECT THE TITLE OF THIS PROPERTY. NO ATTEMPT HAS BEEN MADE IN THIS SURVEY TO SHOW SUCH MATTERS THAT MAY AFFECT TITLE.



REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
JANUARY 1983
EDWARD KING PHELPS
2586
EXPIRES 12-31-10

22870 S WEATHERHILL ROAD
TAX MAP T2S R1E 35B
TAX LOT 405
WEST LINN, OREGON

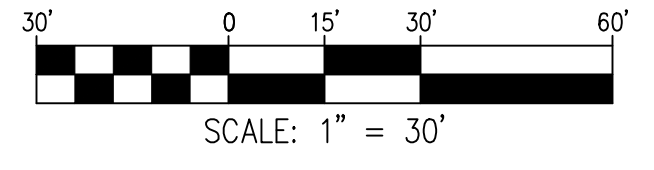
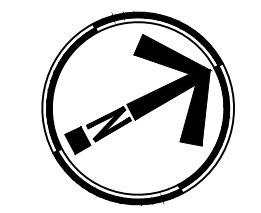
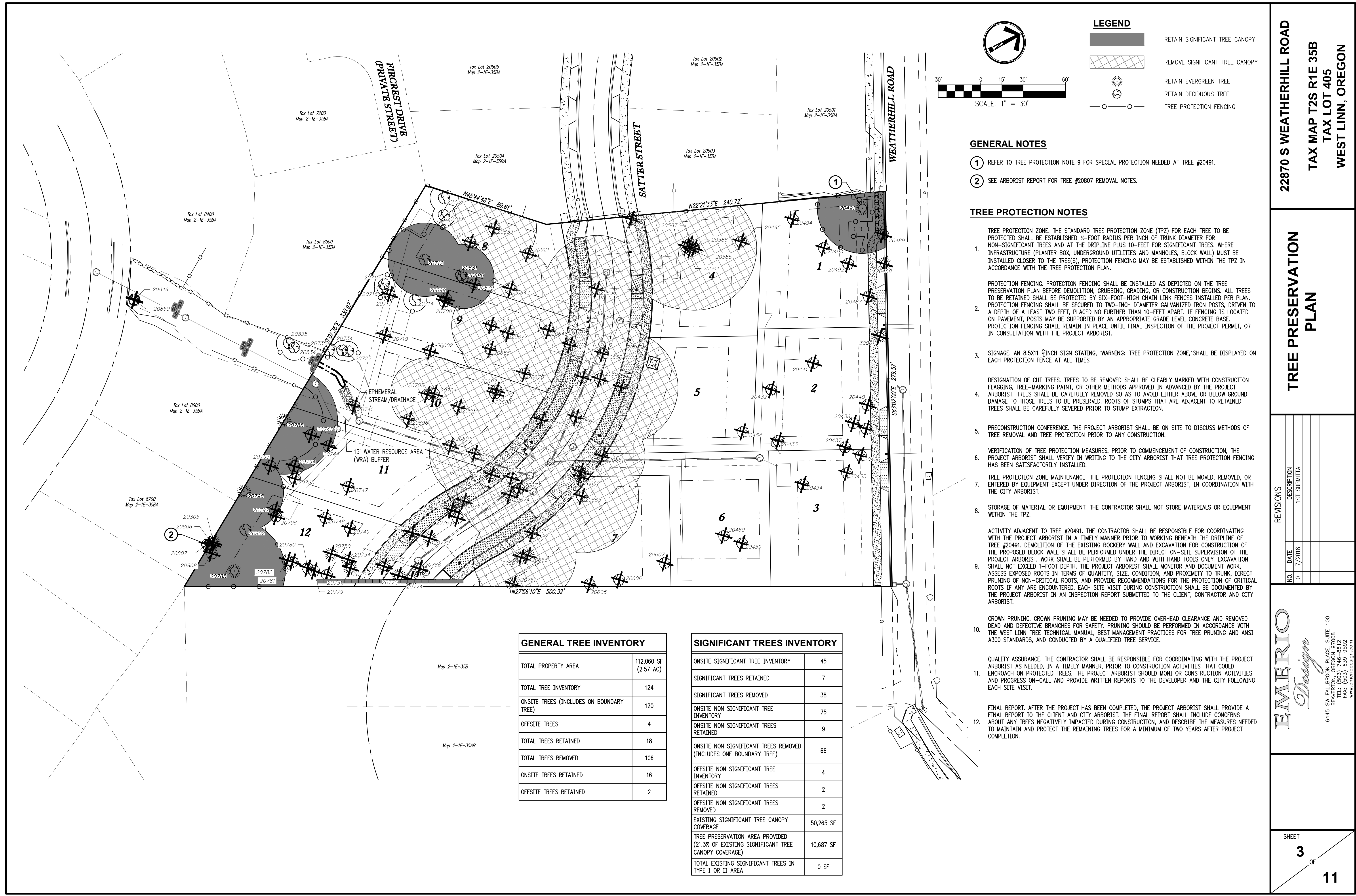
EXISTING CONDITIONS,
DEMOLITION, & PH 1
EROSION CONTROL PLAN

REVISIONS	
NO.	DATE
0	7/2018
DESCRIPTION 1ST SUBMITTAL	

EMERIO
Design

6445 SW FALLBROOK PLACE, SUITE 100
WEST LINN, OREGON 97146
TEL: (503) 746-8812
FAX: (503) 639-9592
www.emeriodesign.com

SHEET
2
OF
11



LEGEND	
	RETAIN SIGNIFICANT TREE CANOPY
	REMOVE SIGNIFICANT TREE CANOPY
	RETAIN EVERGREEN TREE
	RETAIN DECIDUOUS TREE
	TREE PROTECTION FENCING

GENERAL NOTES

- REFER TO TREE PROTECTION NOTE 9 FOR SPECIAL PROTECTION NEEDED AT TREE #20491.
- SEE ARBORIST REPORT FOR TREE #20807 REMOVAL NOTES.

TREE PROTECTION NOTES

- TREE PROTECTION ZONE. THE STANDARD TREE PROTECTION ZONE (TPZ) FOR EACH TREE TO BE PROTECTED SHALL BE ESTABLISHED 1/2-FOOT RADIUS PER INCH OF TRUNK DIAMETER FOR NON-SIGNIFICANT TREES AND AT THE DRIPLINE PLUS 10- FEET FOR SIGNIFICANT TREES. WHERE INFRASTRUCTURE (PLANTER BOX, UNDERGROUND UTILITIES AND MANHOLES, BLOCK WALL) MUST BE INSTALLED CLOSER TO THE TREE(S), PROTECTION FENCING MAY BE ESTABLISHED WITHIN THE TPZ IN ACCORDANCE WITH THE TREE PROTECTION PLAN.
- PROTECTION FENCING. PROTECTION FENCING SHALL BE INSTALLED AS DEPICTED ON THE TREE PRESERVATION PLAN BEFORE DEMOLITION, GRUBBING, GRADING, OR CONSTRUCTION BEGINS. ALL TREES TO BE RETAINED SHALL BE PROTECTED BY SIX-FOOT-HIGH CHAIN LINK FENCES INSTALLED PER PLAN. PROTECTION FENCING SHALL BE SECURED TO TWO-INCH DIAMETER GALVANIZED IRON POSTS, DRIVEN TO A DEPTH OF A LEAST TWO FEET, PLACED NO FURTHER THAN 10- FEET APART. IF FENCING IS LOCATED ON PAVEMENT, POSTS MAY BE SUPPORTED BY AN APPROPRIATE GRADE LEVEL CONCRETE BASE. PROTECTION FENCING SHALL REMAIN IN PLACE UNTIL FINAL INSPECTION OF THE PROJECT PERMIT, OR IN CONSULTATION WITH THE PROJECT ARBORIST.
- SIGNAGE. AN 8.5X11 INCH SIGN STATING, "WARNING: TREE PROTECTION ZONE," SHALL BE DISPLAYED ON EACH PROTECTION FENCE AT ALL TIMES.
- DESIGNATION OF CUT TREES. TREES TO BE REMOVED SHALL BE CLEARLY MARKED WITH CONSTRUCTION FLAGGING, TREE-MARKING PAINT, OR OTHER METHODS APPROVED IN ADVANCE BY THE PROJECT ARBORIST. TREES SHALL BE CAREFULLY REMOVED SO AS TO AVOID EITHER ABOVE OR BELOW GROUND DAMAGE TO THOSE TREES TO BE PRESERVED. ROOTS OF STUMPS THAT ARE ADJACENT TO RETAINED TREES SHALL BE CAREFULLY SEVERED PRIOR TO STUMP EXTRACTION.
- PRECONSTRUCTION CONFERENCE. THE PROJECT ARBORIST SHALL BE ON SITE TO DISCUSS METHODS OF TREE REMOVAL AND TREE PROTECTION PRIOR TO ANY CONSTRUCTION.
- VERIFICATION OF TREE PROTECTION MEASURES. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE PROJECT ARBORIST SHALL VERIFY IN WRITING TO THE CITY ARBORIST THAT TREE PROTECTION FENCING HAS BEEN SATISFACTORILY INSTALLED.
- TREE PROTECTION ZONE MAINTENANCE. THE PROTECTION FENCING SHALL NOT BE MOVED, REMOVED, OR ENTERED BY EQUIPMENT EXCEPT UNDER DIRECTION OF THE PROJECT ARBORIST, IN COORDINATION WITH THE CITY ARBORIST.
- STORAGE OF MATERIAL OR EQUIPMENT. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT WITHIN THE TPZ.
- ACTIVITY ADJACENT TO TREE #20491. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE PROJECT ARBORIST IN A TIMELY MANNER PRIOR TO WORKING BENEATH THE DRIPLINE OF TREE #20491. DEMOLITION OF THE EXISTING ROCKERY WALL AND EXCAVATION FOR CONSTRUCTION OF THE PROPOSED BLOCK WALL SHALL BE PERFORMED UNDER THE DIRECT ON-SITE SUPERVISION OF THE PROJECT ARBORIST. WORK SHALL BE PERFORMED BY HAND AND WITH HAND TOOLS ONLY. EXCAVATION SHALL NOT EXCEED 1-FOOT DEPTH. THE PROJECT ARBORIST SHALL MONITOR AND DOCUMENT WORK, ASSESS EXPOSED ROOTS IN TERMS OF QUANTITY, SIZE, CONDITION, AND PROXIMITY TO TRUNK, DIRECT PRUNING OF NON-CRITICAL ROOTS, AND PROVIDE RECOMMENDATIONS FOR THE PROTECTION OF CRITICAL ROOTS IF ANY ARE ENCOUNTERED. EACH SITE VISIT DURING CONSTRUCTION SHALL BE DOCUMENTED BY THE PROJECT ARBORIST IN AN INSPECTION REPORT SUBMITTED TO THE CLIENT, CONTRACTOR AND CITY ARBORIST.
- CROWN PRUNING. CROWN PRUNING MAY BE NEEDED TO PROVIDE OVERHEAD CLEARANCE AND REMOVED DEAD AND DEFECTIVE BRANCHES FOR SAFETY. PRUNING SHOULD BE PERFORMED IN ACCORDANCE WITH THE WEST LINN TREE TECHNICAL MANUAL, BEST MANAGEMENT PRACTICES FOR TREE PRUNING AND ANSI A300 STANDARDS, AND CONDUCTED BY A QUALIFIED TREE SERVICE.
- QUALITY ASSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE PROJECT ARBORIST AS NEEDED, IN A TIMELY MANNER, PRIOR TO CONSTRUCTION ACTIVITIES THAT COULD ENCROACH ON PROTECTED TREES. THE PROJECT ARBORIST SHOULD MONITOR CONSTRUCTION ACTIVITIES AND PROGRESS ON-CALL AND PROVIDE WRITTEN REPORTS TO THE DEVELOPER AND THE CITY FOLLOWING EACH SITE VISIT.
- FINAL REPORT. AFTER THE PROJECT HAS BEEN COMPLETED, THE PROJECT ARBORIST SHALL PROVIDE A FINAL REPORT TO THE CLIENT AND CITY ARBORIST. THE FINAL REPORT SHALL INCLUDE CONCERNS ABOUT ANY TREES NEGATIVELY IMPACTED DURING CONSTRUCTION, AND DESCRIBE THE MEASURES NEEDED TO MAINTAIN AND PROTECT THE REMAINING TREES FOR A MINIMUM OF TWO YEARS AFTER PROJECT COMPLETION.

GENERAL TREE INVENTORY

TOTAL PROPERTY AREA	112,060 SF (2.57 AC)
TOTAL TREE INVENTORY	124
ONSITE TREES (INCLUDES ON BOUNDARY TREE)	120
OFFSITE TREES	4
TOTAL TREES RETAINED	18
TOTAL TREES REMOVED	106
ONSITE TREES RETAINED	16
OFFSITE TREES RETAINED	2

SIGNIFICANT TREES INVENTORY

ONSITE SIGNIFICANT TREE INVENTORY	45
SIGNIFICANT TREES RETAINED	7
SIGNIFICANT TREES REMOVED	38
ONSITE NON SIGNIFICANT TREE INVENTORY	75
ONSITE NON SIGNIFICANT TREES RETAINED	9
ONSITE NON SIGNIFICANT TREES REMOVED (INCLUDES ONE BOUNDARY TREE)	66
OFFSITE NON SIGNIFICANT TREE INVENTORY	4
OFFSITE NON SIGNIFICANT TREES RETAINED	2
OFFSITE NON SIGNIFICANT TREES REMOVED	2
EXISTING SIGNIFICANT TREE CANOPY COVERAGE	50,265 SF
TREE PRESERVATION AREA PROVIDED (21.3% OF EXISTING SIGNIFICANT TREE CANOPY COVERAGE)	10,687 SF
TOTAL EXISTING SIGNIFICANT TREES IN TYPE I OR II AREA	0 SF

22870 S WEATHERHILL ROAD
 TAX MAP T2S R1E 35B
 TAX LOT 405
 WEST LINN, OREGON

TREE PRESERVATION PLAN

REVISIONS	
NO.	DATE
0	7/2018
	DESCRIPTION
	1ST SUBMITTAL

EMERIO Design
 6445 SW FALLBROOK PLACE, SUITE 100
 BEASLEY, OREGON 97008
 TEL: (503) 746-8817
 FAX: (503) 639-9592
 www.emeriodesign.com

FILE: P:\463-003 Weatherhill Road Phase 1\dwg\plan\463-003-03trees_Layout: 3 TREE PRESERVATION PLAN, Plot Date: 12/19/2018 9:02 AM, by: Josh Ayres



MHA18060 22870 Weatherhill Road - Tree Data 9-26-18 Rev. 12-16-18.xlsx
Page 1 of 3

No.	Type	Common Name	Species Name	DBH*	C-Rad*	Cond*	Comments	Sig?	Treatment
20432	Dec	Caral Bark maple	<i>Acer palmatum</i> 'Sango-kaku'	3x5	12	F	Storm damage, codominant stem failure, open wound	No	Remove
20433	Dec	English hawthorn	<i>Crataegus monogyna</i>	4x10	18	F	Invasive species, moderate structure, crown decay	No	Remove
20434	Dec	English hawthorn	<i>Crataegus monogyna</i>	7x8	25	G	Invasive species	No	Remove
20435	Dec	river birch	<i>Betula nigra</i>	23	30	F	Moderate structure, twig dieback	No	Remove
20436	Dec	river birch	<i>Betula nigra</i>	17	16	F	Moderate structure, twig dieback	No	Remove
20437	Dec	river birch	<i>Betula nigra</i>	16	0	D	Mostly dead	No	Remove
20438	Dec	river birch	<i>Betula nigra</i>	15	28	F	Moderate structure, twig dieback	No	Remove
20439	Dec	river birch	<i>Betula nigra</i>	14	16	F	Moderate structure, twig dieback	No	Remove
20440	Dec	river birch	<i>Betula nigra</i>	18	16	F	Moderate structure, twig dieback	No	Remove
20441	Dec	cherry	<i>Prunus</i> spp.	14	18	G	Well-maintained	No	Remove
20454	Dec	English hawthorn	<i>Crataegus monogyna</i>	4x8	18	F	Invasive species, moderate structure, crown decay	No	Remove
20459	Dec	English hawthorn	<i>Crataegus monogyna</i>	5,6,2x8	18	G	Invasive species	No	Remove
20460	Dec	English hawthorn	<i>Crataegus monogyna</i>	5,2x8	14	G	Invasive species	No	Remove
20487	Con	incense cedar	<i>Calocedrus decurrens</i>	22	12	G	Some crown asymmetry	No	Remove
20488	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	30	26	F	Topped	No	Remove
20489	Dec	bigleaf maple	<i>Acer macrophyllum</i>	13,21	26	F	Moderate structure, previously topped, some trunk decay	No	Remove
20491	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	34	22	G	Spur leader, no major defects	Yes	Retain
20492	Dec	paper birch	<i>Betula papyrifera</i>	11	10	G		No	Remove
20493	Dec	paper birch	<i>Betula papyrifera</i>	2x10	16	G		No	Remove
20494	Dec	English hawthorn	<i>Crataegus monogyna</i>	5x10	20	G	Invasive species	No	Remove
20495	Dec	English hawthorn	<i>Crataegus monogyna</i>	3x12	20	G	Invasive species	No	Remove
20584	Dec	Oregon white oak	<i>Quercus garryana</i>	12,16	34	G	Dense group	Yes	Remove
20585	Dec	Oregon white oak	<i>Quercus garryana</i>	6	22	F	Dense group	Yes	Remove
20586	Dec	Oregon white oak	<i>Quercus garryana</i>	19	34	G	Dense group	Yes	Remove
20587	Dec	Oregon white oak	<i>Quercus garryana</i>	16	34	G	Dense group	Yes	Remove
20605	Dec	Scouler's willow	<i>Salix scouleriana</i>	2x12	16	F	Previous leader failure, dead and broken branches	No	Remove
20606	Dec	English hawthorn	<i>Crataegus monogyna</i>	14	13	F	Invasive species	No	Remove
20607	Dec	sweet cherry	<i>Prunus avium</i>	22	22	F	Invasive species, moderate structure, dead and broken branches	No	Remove
20647	Dec	Oregon white oak	<i>Quercus garryana</i>	2x18	20	G	Oak grove	Yes	Remove
20648	Dec	Oregon white oak	<i>Quercus garryana</i>	14	16	F	Oak grove, few dead and broken branches	Yes	Remove
20649	Dec	Oregon white oak	<i>Quercus garryana</i>	12	15	G	Oak grove	Yes	Remove
20650	Dec	Oregon white oak	<i>Quercus garryana</i>	11,14				Yes	Remove
20651	Dec	Oregon white oak	<i>Quercus garryana</i>	16	20	G	Oak grove	Yes	Remove
20651	Dec	Oregon white oak	<i>Quercus garryana</i>	14,16	30	G	Oak grove	Yes	Remove
20656	Dec	Oregon white oak	<i>Quercus garryana</i>	8,3x14,			Oak grove, hornets nest, old steel brace compartmentalized in trunk	Yes	Remove
20658	Dec	Oregon white oak	<i>Quercus garryana</i>	17	28	G		Yes	Remove
20658	Dec	Oregon white oak	<i>Quercus garryana</i>	3x10	14	G	Oak grove	Yes	Remove
20659	Dec	Oregon white oak	<i>Quercus garryana</i>	14	20	G	Oak grove, one-sided to south	Yes	Remove
20660	Dec	Oregon white oak	<i>Quercus garryana</i>	8	16	G	Oak grove	Yes	Remove
20661	Dec	Oregon white oak	<i>Quercus garryana</i>	8,10,				Yes	Remove
20661	Dec	Oregon white oak	<i>Quercus garryana</i>	14,15	20	G	Oak grove	Yes	Remove
20662	Dec	Oregon white oak	<i>Quercus garryana</i>	5,2x6,			Oak grove, very upright high live crown, small diameter stems are completely dead	Yes	Remove
20662	Dec	Oregon white oak	<i>Quercus garryana</i>	11	12	F		Yes	Remove
20663	Dec	Oregon white oak	<i>Quercus garryana</i>	5,6,				Yes	Remove
20663	Dec	Oregon white oak	<i>Quercus garryana</i>	7,1x18,				Yes	Remove
20663	Dec	Oregon white oak	<i>Quercus garryana</i>	10,2x12,				Yes	Remove
20665	Dec	Oregon white oak	<i>Quercus garryana</i>	18,20	30	G	Oak grove, few dead and broken branches	Yes	Remove
20666	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	24	G	Codominant crown class, ivy up lower trunk	Yes	Remove

Morgan Holen & Associates, LLC
Consulting Arborists and Urban Forest Management
3 Monroe Parkway, Suite P220, Lake Oswego, OR 97035
morgan.holen@comcast.net | 971.409.9354



MHA18060 22870 Weatherhill Road - Tree Data 9-26-18 Rev. 12-16-18.xlsx
Page 2 of 3

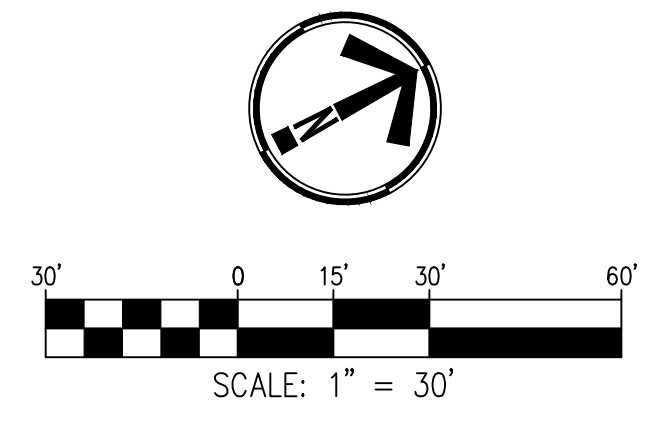
No.	Type	Common Name	Species Name	DBH*	C-Rad*	Cond*	Comments	Sig?	Treatment
20667	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	28	24	G	Codominant crown class, ivy up lower trunk	Yes	Remove
20670	Dec	Oregon white oak	<i>Quercus garryana</i>	8,10,12	16	G	Oak grove	Yes	Remove
20671	Dec	Oregon white oak	<i>Quercus garryana</i>	4x12	18	G	Oak grove	Yes	Remove
20672	Dec	Oregon white oak	<i>Quercus garryana</i>	14	20	F	One-sided to west	Yes	Remove
20673	Dec	Oregon white oak	<i>Quercus garryana</i>	14	30	F	One-sided to north, few dead and broken branches	Yes	Remove
20674	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	36	24	G	Codominant crown class, few dead and broken branches	Yes	Remove
20675	Dec	apple	<i>Malus</i> spp.	8,10	20	P	Very poor structure, dieback, decay	No	Remove
20677	Dec	Oregon white oak	<i>Quercus garryana</i>	14	14	F	Oak grove, one-sided to north, few dead and broken branches	Yes	Remove
20678	Dec	Oregon white oak	<i>Quercus garryana</i>	8,9,14	18	G	Oak grove, few dead and broken branches	Yes	Remove
20679	Dec	Oregon white oak	<i>Quercus garryana</i>	12	12	F	Oak grove, few dead and broken branches, ivy up lower trunk	Yes	Remove
20680	Dec	Oregon white oak	<i>Quercus garryana</i>	12	12	F	Oak grove, few dead and broken branches, ivy up lower trunk	Yes	Retain
20681	Dec	Oregon white oak	<i>Quercus garryana</i>	14	12	F	Oak grove, few dead and broken branches, ivy up lower trunk	Yes	Retain
20682	Dec	Oregon white oak	<i>Quercus garryana</i>	7,2x10	16	G	Oak grove, some ivy	Yes	Remove
20683	Dec	Oregon white oak	<i>Quercus garryana</i>	10,12,14	20	F	Oak grove, few dead and broken branches	Yes	Remove
20686	Dec	Oregon white oak	<i>Quercus garryana</i>	6,8	10	F	Oak grove, few dead and broken branches	Yes	Remove
20687	Dec	Oregon white oak	<i>Quercus garryana</i>	6	10	F	Oak grove, few dead and broken branches	Yes	Remove
20688	Dec	Oregon white oak	<i>Quercus garryana</i>	10	10	F	Oak grove, few dead and broken branches	Yes	Remove
20689	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	26	22	F	Codominant crown class, broken top, new leaders	Yes	Remove
20691	Dec	Oregon ash	<i>Fraxinus latifolia</i>	7	14	F	Moderate structure	No	Remove
20694	Dec	Oregon white oak	<i>Quercus garryana</i>	16,18	18	G	Oak grove	Yes	Remove
20696	Dec	Oregon white oak	<i>Quercus garryana</i>	2x14	12	P	Half dead	No	Remove
20699	Dec	Oregon white oak	<i>Quercus garryana</i>	10	5	P	Oak grove, suppressed	No	Remove
20700	Dec	Oregon white oak	<i>Quercus garryana</i>	14	12	P	Oak grove, severe ivy infestation, small live crown	No	Remove
20704	Dec	Oregon white oak	<i>Quercus garryana</i>	2x14	16	G	Oak grove	Yes	Remove
20705	Dec	Oregon white oak	<i>Quercus garryana</i>	16	16	G	Oak grove	Yes	Remove
20709	Dec	madrone	<i>Arbutus menziesii</i>	16	14	F	Crown dieback, trunk decay	No	Retain
20712	Dec	Oregon white oak	<i>Quercus garryana</i>	18	16	G	Oak grove, ivy up lower trunk	Yes	Retain
20714	Dec	Scouler's willow	<i>Salix scouleriana</i>	4x8	12	F	Inaccessible	No	Retain
20715	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	12	F	Inaccessible	No	Retain
20716	Dec	Scouler's willow	<i>Salix scouleriana</i>	12	12	F	Inaccessible	No	Retain
20717	Dec	Scouler's willow	<i>Salix scouleriana</i>	10	12	F	Inaccessible	No	Retain
20719	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	12	F	Inaccessible	No	Retain
20722	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	12	F	Inaccessible	No	Retain
20738	Dec	bigleaf maple	<i>Acer macrophyllum</i>	3x20	24	F	Moderate structure, additional codominant stem failed in past and has advanced decay, remaining stems are mostly one-sided to east	No	Retain
20734	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	12	F	Inaccessible	No	Retain
20735	Dec	bigleaf maple	<i>Acer macrophyllum</i>	10	12	F	Inaccessible	No	Retain
20741	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	10	F	Inaccessible	No	Remove
20744	Dec	bigleaf maple	<i>Acer macrophyllum</i>	7	12	F	Poor structure	No	Remove
20745	Dec	Scouler's willow	<i>Salix scouleriana</i>	16	8	P	History of branch failure, crown decay, trunk decay with hollow	No	Remove
20747	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	16	F	Poor structure	No	Remove
20748	Dec	English holly	<i>Ilex aquifolium</i>	8	8	F	Invasive species	No	Remove
20749	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	8	F	Poor structure	No	Remove
20750	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	14	F	Codominant crown class, old broken top	No	Remove

Morgan Holen & Associates, LLC
Consulting Arborists and Urban Forest Management
3 Monroe Parkway, Suite P220, Lake Oswego, OR 97035
morgan.holen@comcast.net | 971.409.9354



MHA18060 22870 Weatherhill Road - Tree Data 9-26-18 Rev. 12-16-18.xlsx
Page 3 of 3

No.	Type	Common Name	Species Name	DBH*	C-Rad*	Cond*	Comments	Sig?	Treatment
20751	Dec	bigleaf maple	<i>Acer macrophyllum</i>	10	16	F	Poor structure	No	Remove
20753	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	16	14	F	Codominant crown class, ivy	No	Remove
20754	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	7	3	P	Suppressed, mostly dead	No	Remove
20761	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	19	14	G	Ivy up trunk, codominant crown class	Yes	Remove
20766	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	12	10	F	Codominant crown class, some ivy	No	Remove
20767	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	14	F	Pistolbutt, sweep in upper trunk	No	Remove
20768	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	19	14	F	One-sided to south, sweep in upper trunk	No	Remove
20769	Dec	Oregon white oak	<i>Quercus garryana</i>	16,20	12	F	Codominant stems with seam, dead and broken branches, crown decay, upright crown	No	Remove
20770	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	20	15	F	Old broken top, forked leaders, twig dieback	No	Remove
20771	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	14	F	Codominant crown class	No	Remove
20774	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	12	10	F	Codominant crown class, ivy up trunk	No	Remove
20775	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	16	8	F	Codominant crown class, ivy up trunk	No	Remove
20776	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	10	6	P	Suppressed, extensive ivy	No	Remove
20779	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	16	F	Very poor structure	No	Remove
20780	Dec	bigleaf maple	<i>Acer macrophyllum</i>	2x6	10	F	Very poor structure	No	Remove
20781	Dec	bigleaf maple	<i>Acer macrophyllum</i>	10	10	F	Very poor structure	No	Remove
20782	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	10	F	Very poor structure	No	Remove
20785	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	47	26	G	Forked leaders	Yes	Retain
20788	Con	Scouler's willow	<i>Salix scouleriana</i>	36	28	G	Limited assessment	Yes	Retain
20793	Con	Scouler's willow	<i>Salix scouleriana</i>	14	8	P	Multiple leader failures, vigorous sprouting	No	Remove
20794	Dec	bigleaf maple	<i>Acer macrophyllum</i>	9	16	F	Poor structure	No	Retain
20795	Dec	bigleaf maple	<i>Acer macrophyllum</i>	2x6	10	P	Very poor structure	No	Remove
20796	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	12	F	Poor structure	No	Remove
20797	Dec	bigleaf maple	<i>Acer macrophyllum</i>	7	14	F	Poor structure	No	Remove
20798	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	23	18	G	Limited assessment	Yes	Retain
20802	Dec	bigleaf maple	<i>Acer macrophyllum</i>						



Slopes Table

Number	Minimum Slope	Maximum Slope	Area	Color
1	0%	15%	23,980	
2	15%	25%	53,565	
3	25%	35%	26,069	
4	35%	-	12,308	

22870 S WEATHERHILL ROAD
 TAX MAP T2S R1E 35B
 TAX LOT 405
 WEST LINN, OREGON

SLOPE ANALYSIS PLAN

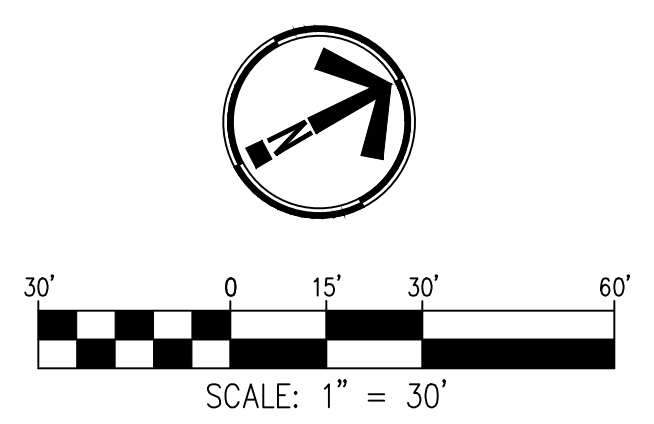
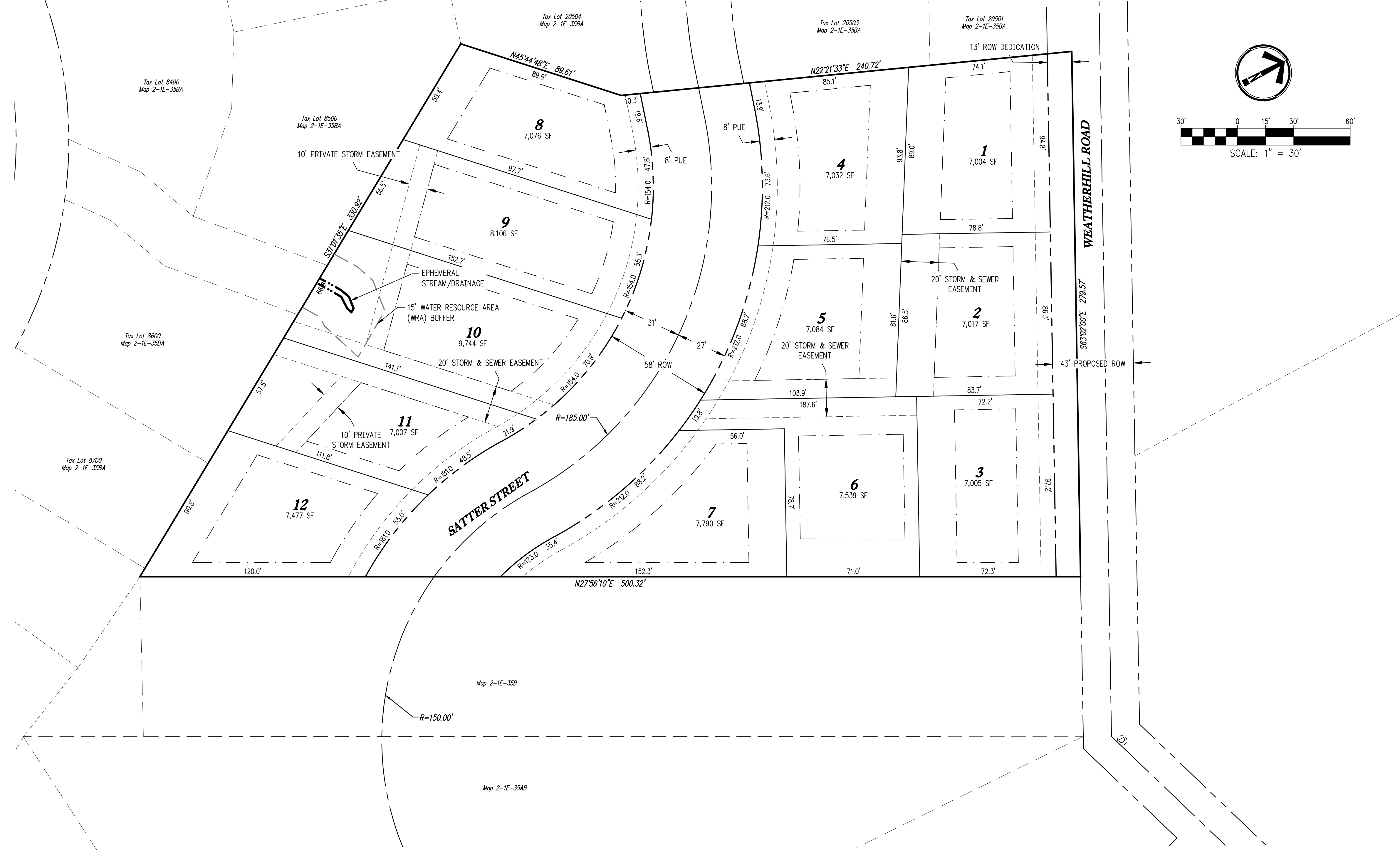
REVISIONS

NO.	DATE	DESCRIPTION
0	7/2018	1ST SUBMITTAL

EMERIO
Design

6445 SW FALLBROOK PLACE, SUITE 100
 BEASLEY, OREGON 97008
 TEL: (503) 746-8812
 FAX: (503) 639-9592
 www.emeriodesign.com

FILE: P:\463-003_Weatherhill Road Phase 1\dwg\plan\463-003_05Slope Layout: 5 SLOPE ANALYSIS PLAN, Plot Date: 12/19/2018 8:41 AM, by: Josh Ayers



LEGEND

- 6' P.U.E.
- - - - - SETBACK LINES
- BOUNDARY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- X - X - X - PROPOSED FENCE

PARCEL DATA

AREA:	2.57 Ac.
ZONING:	R-7
TAX MAP:	2S1E 35B
TAX LOTS:	0405
NO. OF LOTS:	12
PARCELS:	1

MINIMUM SETBACKS

FRONT:	20'
SIDE:	7.5'
STREET SIDE:	15'
GARAGE DOOR:	20'
REAR:	20'
MAX HEIGHT:	35'
MAX LOT COVERAGE:	35%
AVERAGE MIN LOT WIDTH:	35'

SITE DATA

ZONE:	R-7
TOTAL SITE AREA:	2.57 ACRES (112,060 SQ. FT.)
R.O.W. DEDICATION:	0.08 ACRES (3,626 SQ. FT.)
PUBLIC/Private STREET:	0.51 ACRES (22,179 SQ. FT.)
12 LOTS/1 PARCEL:	
MINIMUM LOT SIZE:	7,004 SQ. FT.
MAXIMUM LOT SIZE:	9,744 SQ. FT.
AVG. LOT SIZE:	7,490 SQ. FT.

22870 S WEATHERHILL ROAD
 TAX MAP T2S R1E 35B
 TAX LOT 405
 WEST LINN, OREGON

PRELIMINARY PLAT

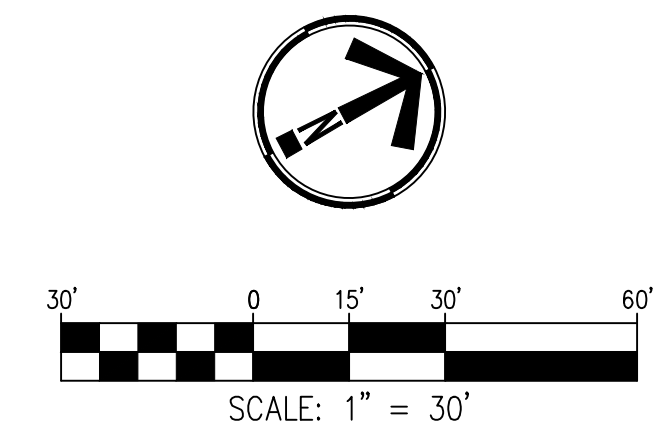
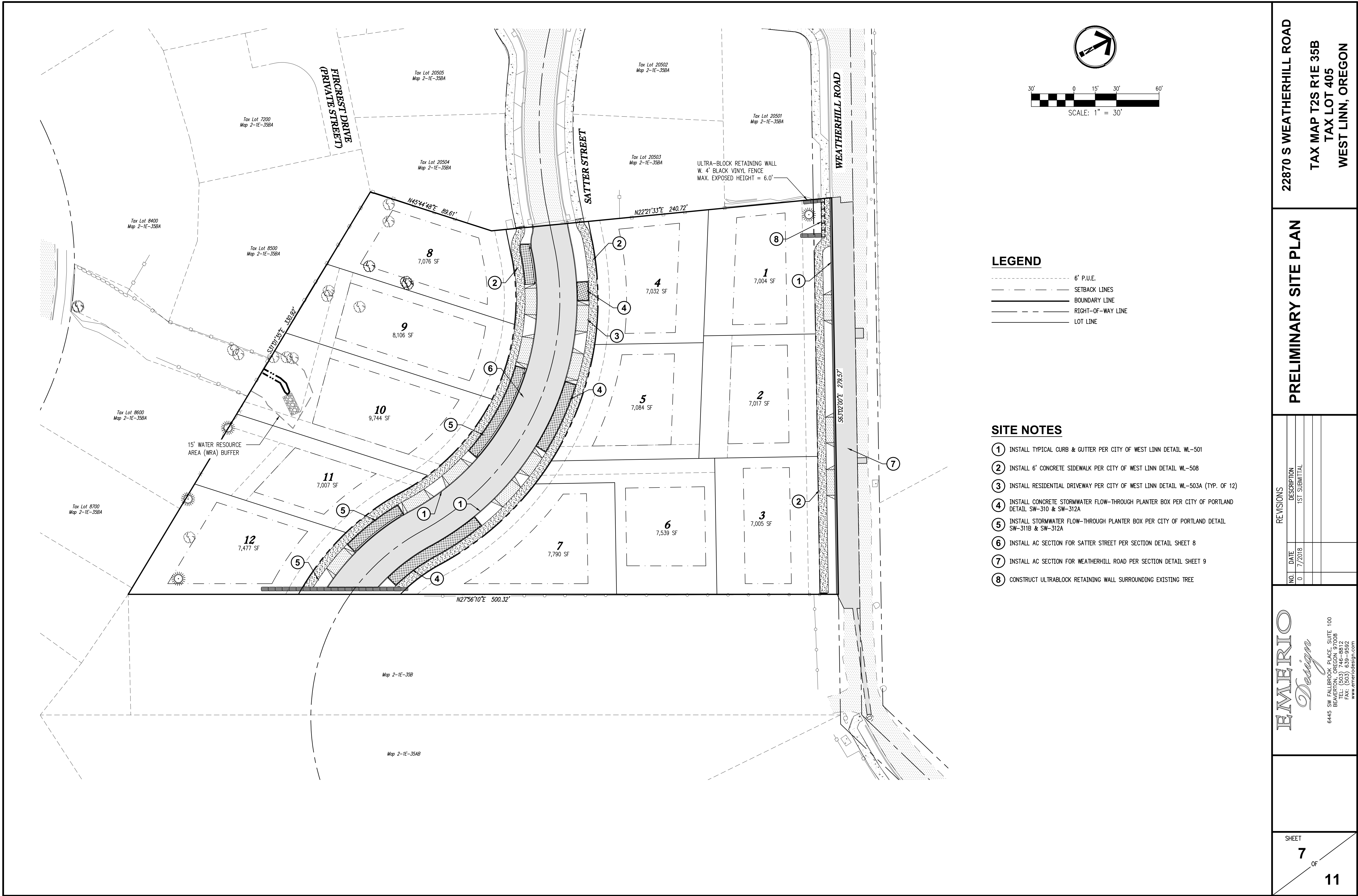
REVISIONS

NO.	DATE	DESCRIPTION
0	7/2018	1ST SUBMITTAL

EMERIO Design

6445 SW FALLBROOK PLACE, SUITE 100
 WEST LINN, OREGON 97136
 TEL: (503) 746-8812
 FAX: (503) 639-9592
 www.emeriodesign.com

FILE: P:\463-003 Weatherhill Road Phase 1\dwg\plan\463-003-6.plat, Layout: 6 PRELIMINARY PLAT, Plot Date: 12/19/2018 9:33 AM, by: Josh Ayers



- LEGEND**
- 6' P.U.E.
 - - - - - SETBACK LINES
 - BOUNDARY LINE
 - RIGHT-OF-WAY LINE
 - LOT LINE

- SITE NOTES**
- 1 INSTALL TYPICAL CURB & GUTTER PER CITY OF WEST LINN DETAIL WL-501
 - 2 INSTALL 6" CONCRETE SIDEWALK PER CITY OF WEST LINN DETAIL WL-508
 - 3 INSTALL RESIDENTIAL DRIVEWAY PER CITY OF WEST LINN DETAIL WL-503A (TYP. OF 12)
 - 4 INSTALL CONCRETE STORMWATER FLOW-THROUGH PLANTER BOX PER CITY OF PORTLAND DETAIL SW-310 & SW-312A
 - 5 INSTALL STORMWATER FLOW-THROUGH PLANTER BOX PER CITY OF PORTLAND DETAIL SW-311B & SW-312A
 - 6 INSTALL AC SECTION FOR SATTER STREET PER SECTION DETAIL SHEET 8
 - 7 INSTALL AC SECTION FOR WEATHERHILL ROAD PER SECTION DETAIL SHEET 9
 - 8 CONSTRUCT ULTRABLOCK RETAINING WALL SURROUNDING EXISTING TREE

22870 S WEATHERHILL ROAD
 TAX MAP T2S R1E 35B
 TAX LOT 405
 WEST LINN, OREGON

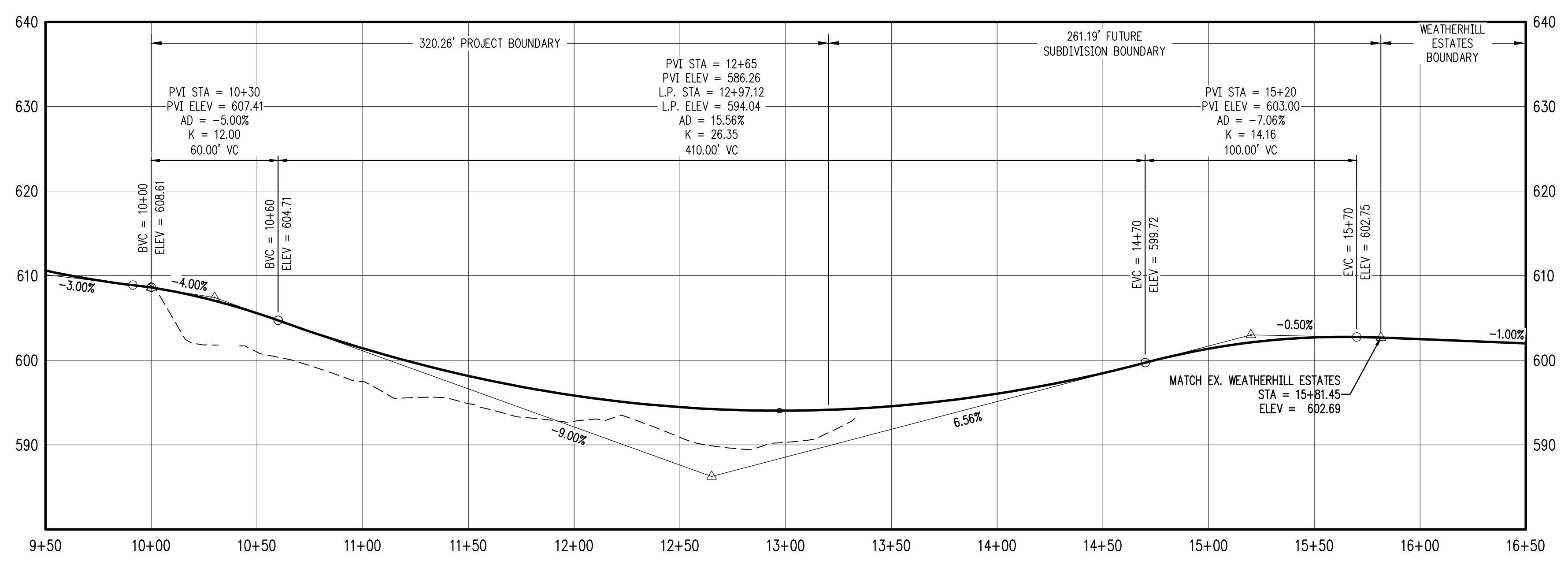
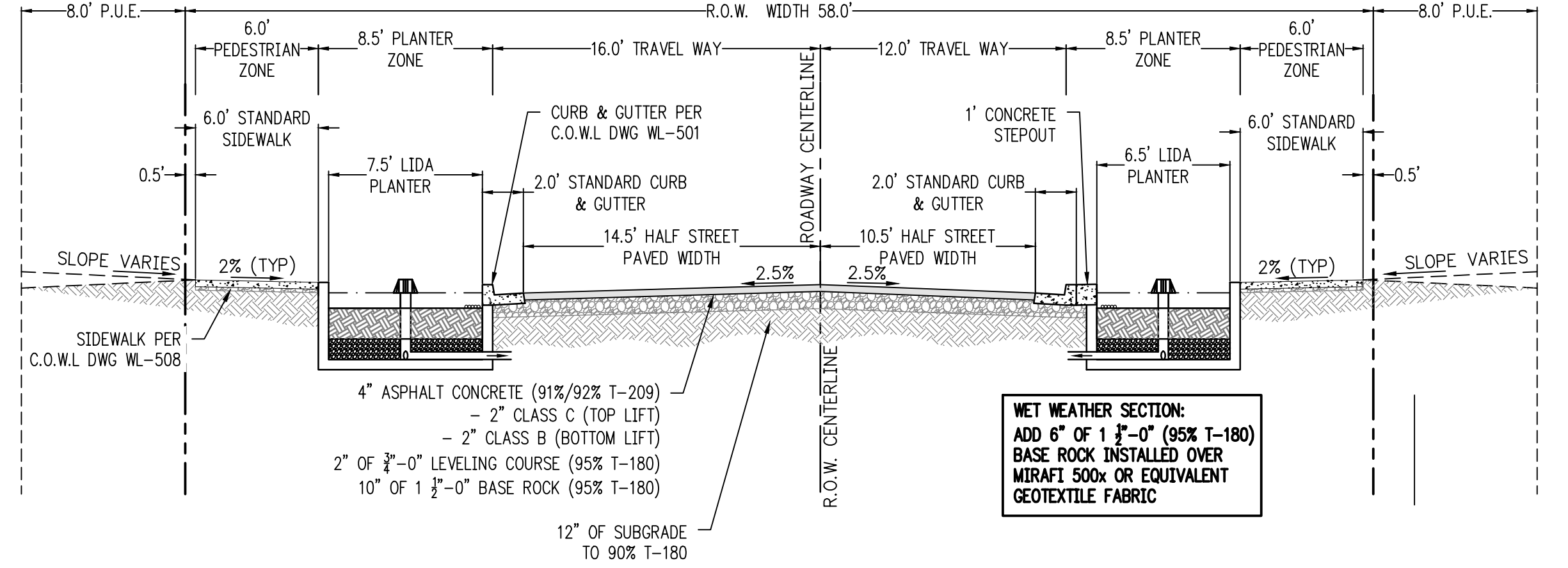
PRELIMINARY SITE PLAN

REVISIONS	
NO.	DATE
0	7/2018
	DESCRIPTION
	1ST SUBMITTAL

EMERIO
Design

6445 SW FALLBROOK PLACE, SUITE 100
 BEVINGTON, OREGON 97115
 TEL: (503) 746-8812
 FAX: (503) 639-9592
 www.emeriodesign.com

FILE-P:\463-003 Weatherhill Road Phase 1\dwg\plan\463-003_075.spl, Layout: 7 PRELIMINARY SITE PLAN, Plot Date: 7/19/2018 9:35 AM, by: Josh Ayers



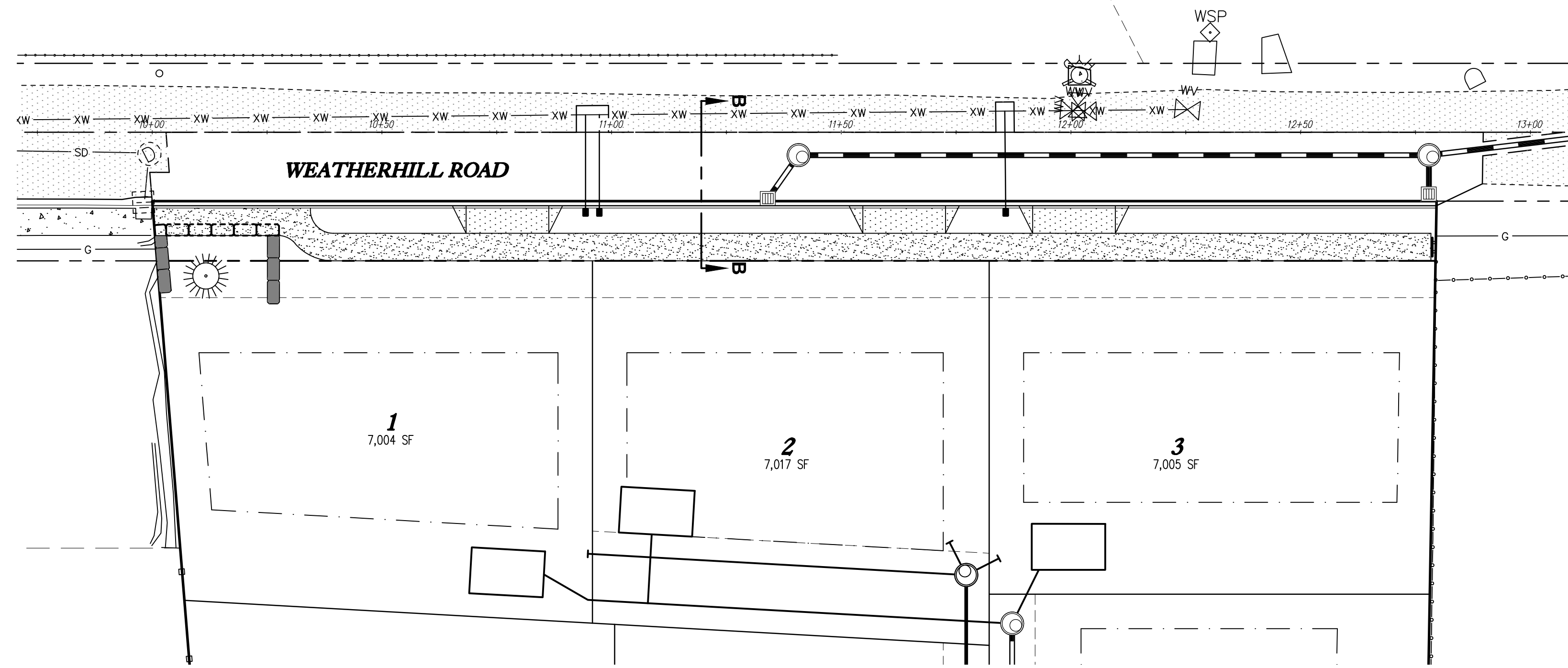
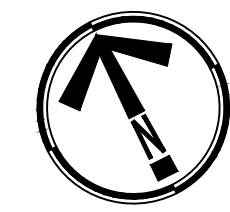
22870 S WEATHERHILL ROAD
TAX MAP T2S R1E 35B
TAX LOT 405
WEST LINN, OREGON

**SATTER STREET PLAN,
PROFILE, AND STORM LINE**

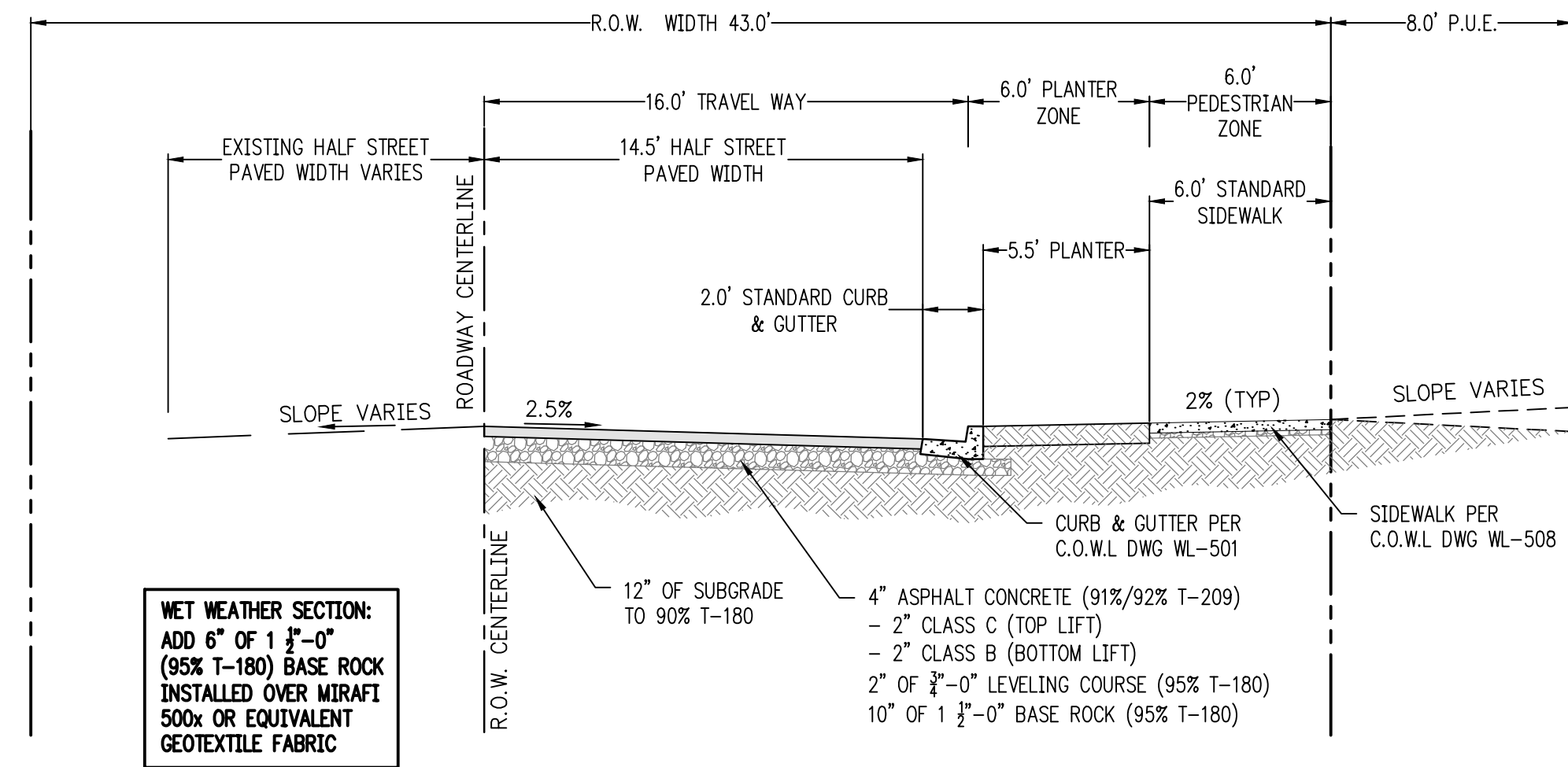
NO.	DATE	DESCRIPTION
0	7/2018	1ST SUBMITTAL

EMERIO Design
6445 SW FALLBROOK PLACE, SUITE 100
BEAVER CREEK, OREGON 97005
TEL: (503) 746-8812
FAX: (503) 639-9592
www.emeriodesign.com

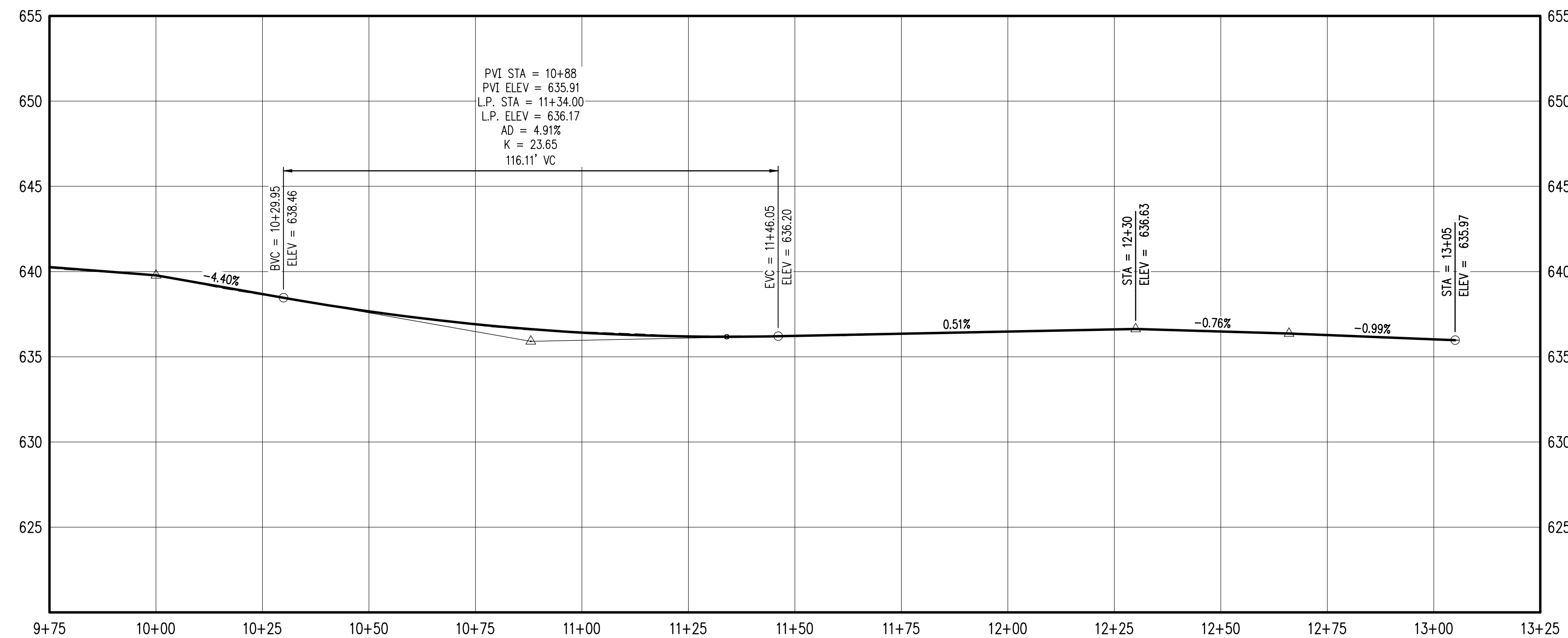
FILE: P:\463-003_Weatherhill_Road_Phase 1\dwg\plan\463-003_8street_Layout - 8 Satter Street Plan Profile and Storm Line.dwg, Plot Date: 12/19/2018 9:42 AM, by: Josh Myers



WEATHERHILL ROAD PLAN
SCALE: 1"=20'



SECTION B-B: LOCAL ROAD W/ DETACHED SIDEWALK (RIGHT) - TYPICAL SECTION
SCALE: N.T.S.



WEATHERHILL ROAD PROFILE
SCALE: 1"=20' HORZ. 1"=5' VERT.

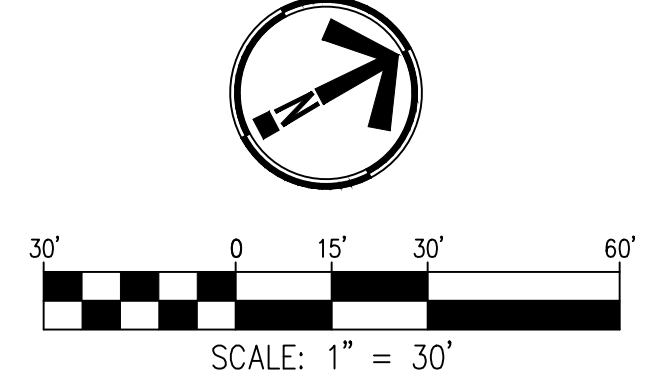
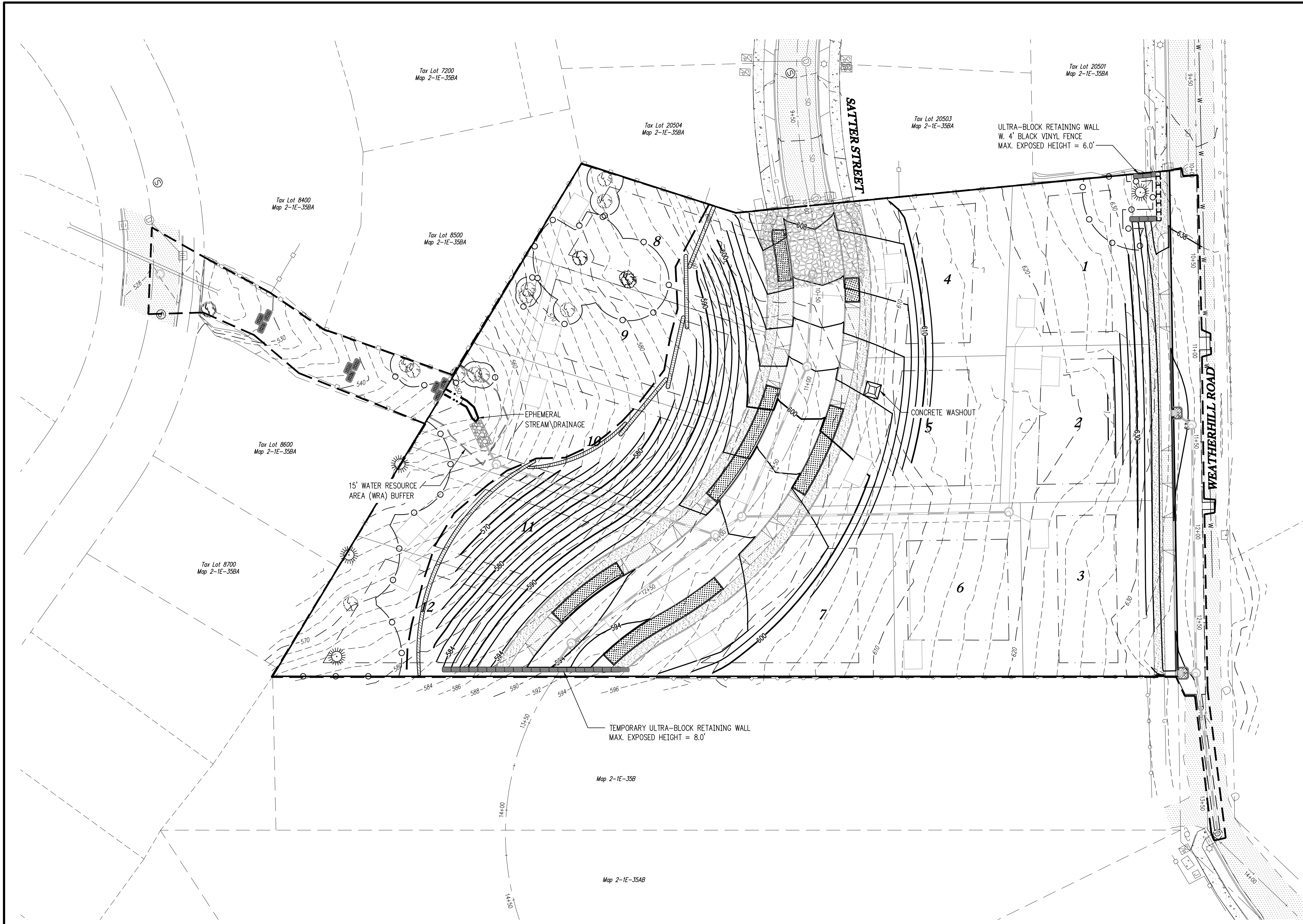
22870 S WEATHERHILL ROAD
TAX MAP T2S R1E 35B
TAX LOT 405
WEST LINN, OREGON

**WEATHERHILL ROAD
PLAN, PROFILE, AND
STORM LINE**

REVISIONS	
NO.	DATE
0	7/2018
	DESCRIPTION
	1ST SUBMITTAL

EMERIO
Design

6445 SW FALLBROOK PLACE, SUITE 100
WEST LINN, OREGON 97136
TEL: (503) 746-8812
FAX: (503) 639-9592
www.emeriodesign.com



LEGEND	
	PROPOSED MAJOR CONTOUR LINE
	PROPOSED MINOR CONTOUR LINE
	EXISTING MAJOR CONTOUR LINE
	EXISTING MINOR CONTOUR LINE
	PROPERTY BOUNDARY LINE
	SIGNIFICANT RESOURCE OVERLAY ZONE (SROZ)
	PROPOSED LOT LINE
	PROPOSED RIGHT-OF-WAY LINE
	PROPOSED PUE EASEMENT
	PROPOSED SANITARY SEWER LINE
	PROPOSED STORM DRAIN LINE
	PROPOSED WATER LINE
	CONSTRUCTION TREE PROTECTION FENCE (6' HIGH CHAIN LINK WITH METAL POSTS)
	PROPOSED SANITARY SEWER MANHOLE
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED CURB INLET CATCH BASIN
	PROPOSED FIRE HYDRANT
	PROPOSED SIDEWALK TO BE INSTALLED AT TIME OF STREET CONSTRUCTION
	PROPOSED LIDA PLANTER

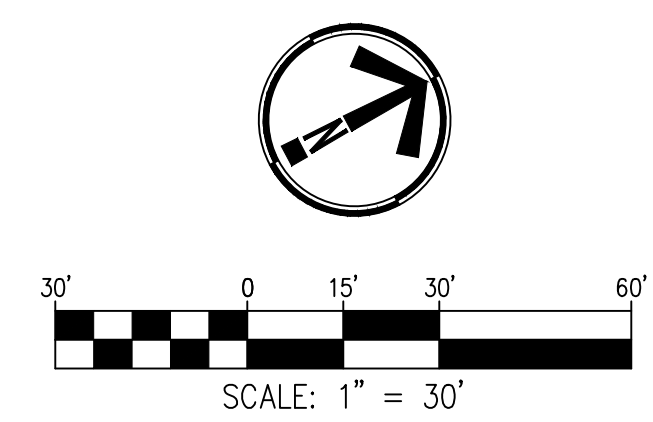
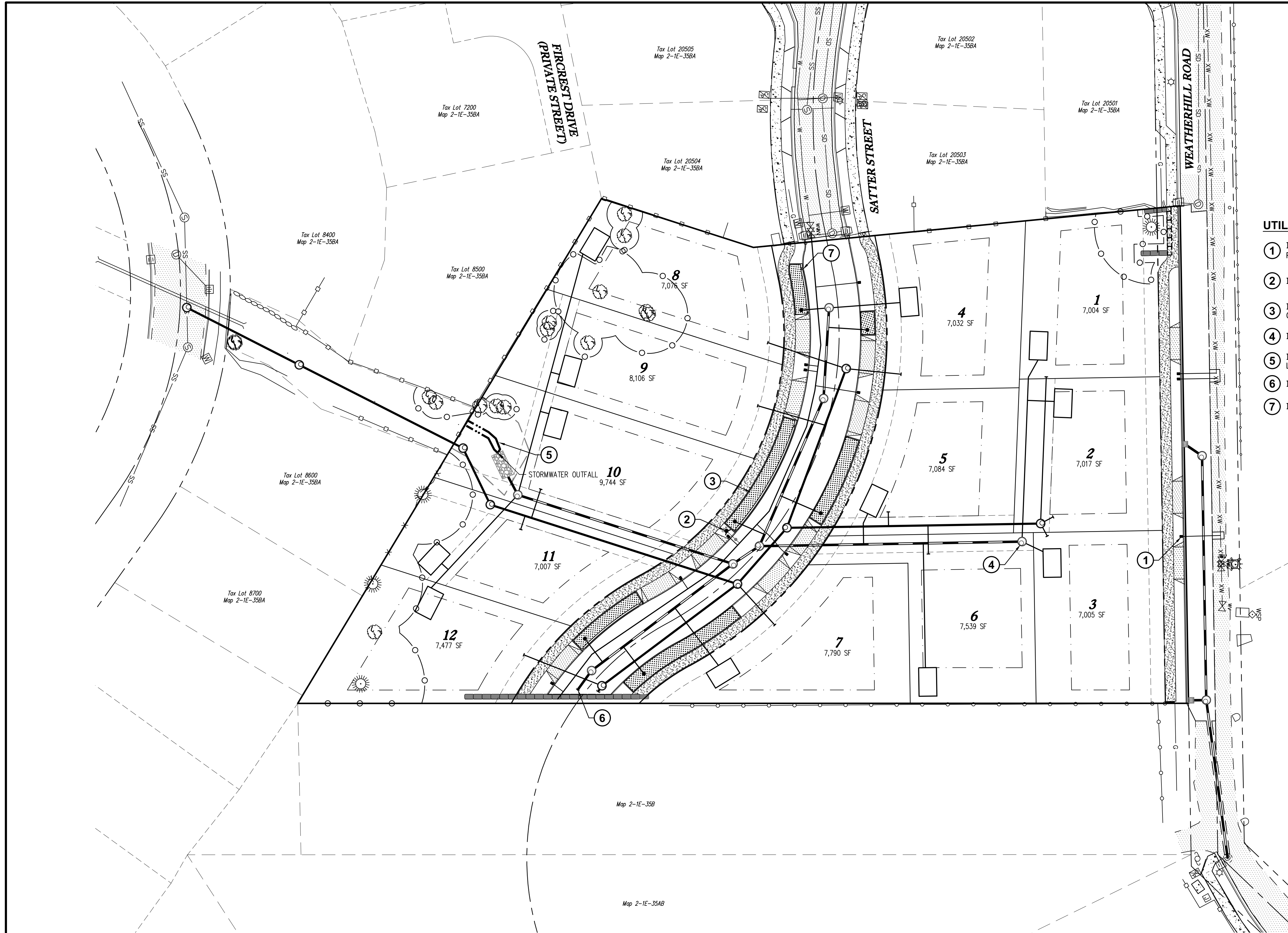
22870 S WEATHERHILL ROAD
 TAX MAP T2S R1E 35B
 TAX LOT 405
 WEST LINN, OREGON

PHASE 2 GRADING & EROSION CONTROL PLAN

REVISIONS		
NO.	DATE	DESCRIPTION
0	7/2018	1ST SUBMITTAL

EMERIO
Design
 6445 SW FALLBROOK PLACE, SUITE 100
 BEASLEY, OREGON 97008
 TEL: (503) 746-8812
 FAX: (503) 639-9592
 www.emeriodesign.com

FILE-P:\463-003_10grad_Layout: 10 PHASE 2 GRADING & EROSION CONTROL PLAN, Plot Date: 12/19/2018 10:05 AM, by: Josh Ayers



UTILITY CONSTRUCTION NOTES

- ① INSTALL SINGLE WATER METER PER LOT AND EXTEND 1" SERVICE LATERAL 3' PAST PUE (TYP. OF 12)
- ② INSTALL FIRE HYDRANT PER CITY OF WEST LINN DETAIL WL-401
- ③ INSTALL LIDA FLOW-THROUGH PLANTER BOX WITH UNDERDRAIN & BEEHIVE OUTLET
- ④ INSTALL STANDARD 48" MANHOLE (TYP. OF 14)
- ⑤ INSTALL 7' X 14.5' RIP RAP PAD AT OVERLAND STORMWATER DISCHARGE LOCATION
- ⑥ INSTALL PLUG ON STORM SEWER FOR FUTURE CONNECTION TO THE EAST
- ⑦ INSTALL CURB CUT INLET FOR LIDA FLOW-THROUGH PLANTER (TYP. OF 6)

LOT DRAINAGE NOTE:

1. EACH LOT SHALL HAVE AN ON SITE LIDA PLANTER TO TREAT ON SITE STORM DRAINAGE.

LEGEND:

- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM DRAIN LINE
- PROPOSED WATER LINE
- PROPOSED PUE EASEMENT
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED CURB INLET CATCH BASIN
- PROPOSED FIRE HYDRANT
- PROPOSED BLOW-OFF
- LIDA PLANTER
- PROPOSED WATER METER

COMPOSITE UTILITY PLAN

SCALE: 1" = 30'

22870 S WEATHERHILL ROAD
 TAX MAP T2S R1E 35B
 TAX LOT 405
 WEST LINN, OREGON

COMPOSITE UTILITY PLAN

REVISIONS	
NO.	DATE
0	7/2018
	DESCRIPTION
	1ST SUBMITTAL

EMERIO
Design

6445 SW FALLBROOK PLACE, SUITE 100
 BEASLEY, OREGON 97105
 TEL: (503) 746-8812
 FAX: (503) 639-9592
 www.emeriodesign.com

City of West Linn
PRE-APPLICATION CONFERENCE MEETING
SUMMARY NOTES
September 6, 2018

SUBJECT: Application for subdivision of 2.56 acre property (111,537 square foot) property owned by David and Diana Dean at 22870 Weatherhill Road

FILE: PA-18-25

ATTENDEES: Applicants: Steve Miller & Eric Evans (Emerio Designs) Other Attendees: Ed Schwarz, Roberta Schwarz, Steve & Margot Kelly, Bob Schultz and Jason Arn (TVFR). Staff: Jennifer Arnold (Planning) and Erich Lais (Engineering)

The following is a summary of the meeting discussion provided to you from staff meeting notes. Additional information may be provided to address any "follow-up" items identified during the meeting. These comments are PRELIMINARY in nature. Please contact the Planning Department with any questions regarding approval criteria, submittal requirements, or any other planning-related items. Please note disclaimer statement below.

SITE INFORMATION:

Site Address: 22870 Weatherhill Road (21E35B tax lot 405)

Site Area: 2.56 acre (111,537 square feet)

Neighborhood: Savanna Oaks

Comp. Plan: Low density residential (West Linn)

Zoning: Single-Family Residential Detached and Attached (R-7)

Applicable code: CDC Chapter 12: (R-7 Zone)

CDC Chapter 32: Water Resource Area Protection

CDC Chapter 48: Access, Egress and Circulation

CDC Chapter 85: Land Division

CDC Chapter 92: Required Improvements

PROJECT DETAILS: This property, 22870 Weatherhill Road, was recently approved by City Council to annex into West Linn. The property is 111,537 square feet or approximately 2.56 acres. The property is also zoned R-7 which allows development of 7,000 square foot lots. The applicant is proposing 12 lots and continuing Satter Street through the property. Staff has recommended coordination with the neighboring property at 22864 Weatherhill for necessary easements, road connectivity, and tree protection.

Engineering/TVFR Comments: Contact Erich Lais at elais@westlinnoregon.gov for Engineering comments and Jason Arn at Jason.arn@tvfr.com for TVFR comments.

Neighborhood/Public Concerns: 1. Level of Service (Traffic) on Weatherhill Road and Satter Road; 2. The location of any ephemeral streams or wetlands on the property not to be disturbed; 3. Tree protection; 4. On-street parking on Satter.

PROCESS: The subdivision submittal requirements and approval criteria of CDC Chapter 85 apply. A stormwater report, geotechnical report, tree inventory are required. A traffic Impact Analysis may be required if this project meets the criteria outlined in CDC Chapter 85, or the Public Works Director believes it's necessary. The applicant is required to apply for a Water Resource Area Protection (WAP) permit to define the stream and wetlands on the property. The subdivision application has a deposit fee of \$4,200 plus \$200 per lot. The WAP permit is \$2,600.

N/A is not an acceptable response to the approval criteria. The submittal requirements may be waived, but the applicant must first identify the specific submittal requirement and request, in letter form, that it be waived by the Planning Manager and must identify the specific grounds for that waiver.

A neighborhood meeting is required per CDC 99.038. Follow the requirements of that section explicitly. The site is within the Savanna Oaks neighborhood. Contact their president at SavannaOaksNA@westlinnoregon.gov.

Once the subdivision application and deposit/fee are submitted, the City has 30 days to determine if the application is complete or not. Once the submittal is deemed complete, the City has 120 days to exhaust all local review. The review includes providing notice per CDC Chapter 99 and scheduling a public hearing with the Planning Commission. Appeals of the Planning Commission's decision are heard by City Council and subsequently by the Land Use Board of Appeals.

Typical land use applications can take 6-12 months from beginning to end.

DISCLAIMER: This summary discussion covers issues identified to date. It does not imply that these are the only issues. The burden of proof is on the applicant to demonstrate that all approval criteria have been met. These notes are not intended as minutes of the meeting. These notes do not constitute an endorsement of the proposed application ***or provide any assurance of potential outcomes.*** Staff responses are based on limited material presented at this pre-application meeting. New issues, requirements, etc. could emerge as the application is developed. ***A new pre-application conference would have to be scheduled after 18 months and these notes would no longer be valid. Any changes to the CDC standards may require a different design or submittal.***

EMERIO *Design*

CIVIL ENGINEERS, SURVEYORS & PLANNERS

September 11, 2018

Neighborhood Meeting

RE: Proposed Residential Subdivision

To Our Neighbors:

Emerio Design, LLC acts on behalf of the Schultz Development Group (SDG) regarding the planned subdivision of a property located at 22870 Weatherhill Road. The location of the property is shown on the attached map. The tax lot number for the property is 2S1E35B 405. The property is located inside the City of West Linn's boundaries and it is zoned R-7 for Single Family Dwellings. Prior to applying to the City of West Linn for subdivision review, we would like to take the opportunity to discuss the proposal in more detail with you. Before finalizing an application to the City's Planning Department for the proposed subdivision, we would like to take the opportunity to discuss this proposal with the members of the Savana Oaks and Willamette Neighborhood Associations and property owners residing within 500 feet of the property.

A meeting to discuss this project has been scheduled at the following time and location:

**Informational Meeting
Tuesday, October 2nd at 7:00pm
TV&R Fire Station – Community Room
1860 Willamette Falls Drive
West Linn, OR 97068**

The purpose of this meeting will be to provide a forum for surrounding property owners and residents to review the proposal and to identify issues so they can be given proper consideration. This meeting will provide the opportunity for the public to share with the project team any specific information about the property involved. The project team will try to answer questions related to how the project meets the relevant development standards consistent with West Linn's land use regulations.

Please note that this will be an informational meeting based on preliminary development plans and that these plans may change before the application is submitted to the City.

We look forward to discussing this proposal with you. Please feel free to contact us by emailing stevem@emeriodesign.com if you have any questions.

Sincerely,
Steve Miller, Principal Planner
Emerio Design, LLC

Steve Miller

From: Steve Miller
Sent: Tuesday, September 11, 2018 2:55 PM
To: WillametteNA@westlinnoregon.gov
Subject: Neighborhood meeting

Hi Mr. Mallory

We represent a client who is preparing to subdivide a property located on Weatherhill Rd. and have a neighborhood meeting scheduled with the Savana Oaks NA for October 2nd. I'm contacting you today because the boundary of the Willamette NA is within 500-feet of the property. I have a letter prepared to mail to you and your designee, but I need to get the name of your designee, as well as the mailing address for both you and the designee. We need to get the letters mailed out by tomorrow, so your help is greatly appreciated.

Kind Regards,

Steve



Steve Miller | Senior Planner/Project Manager
6445 SW Fallbrook Place, Suite 100, Beaverton, OR 97008
Ofc: 503.746.8812 Cell: 541.318.7487 | www.emeriodesign.com

Steve Miller

From: Steve Miller
Sent: Wednesday, September 12, 2018 1:45 PM
To: 'WillametteNA@westlinnoregon.gov'
Cc: 'Arnold, Jennifer'
Subject: RE: Neighborhood meeting
Attachments: Clackamas Co Assessor Map_03_2s1e35b.pdf; Willamette NA Notice Letter.docx

Importance: High

Hello Mr. Mallory,

Since I was unable to receive your mailing address in time to send you the required certified mail notice for our upcoming Neighborhood meeting with the Savana Oaks NA, I am sending you the notice via email. Please forward a copy of the attached notice letter and Assessor map to your designee of choice as required by the City's code. We greatly appreciate your help with this matter and we look forward to seeing you at the upcoming neighborhood meeting on October 2nd. Should you have any questions, please don't hesitate contacting me at any time.

Best Regards,

Steve



Steve Miller | Senior Planner/Project Manager
6445 SW Fallbrook Place, Suite 100, Beaverton, OR 97008
Ofc: 503.746.8812 Cell: 541.318.7487 | www.emeriodesign.com

From: Steve Miller
Sent: Tuesday, September 11, 2018 2:55 PM
To: WillametteNA@westlinnoregon.gov
Subject: Neighborhood meeting

Hi Mr. Mallory

We represent a client who is preparing to subdivide a property located on Weatherhill Rd. and have a neighborhood meeting scheduled with the Savana Oaks NA for October 2nd. I'm contacting you today because the boundary of the Willamette NA is within 500-feet of the property. I have a letter prepared to mail to you and your designee, but I need to get the name of your designee, as well as the mailing address for both you and the designee. We need to get the letters mailed out by tomorrow, so your help is greatly appreciated.

Kind Regards,

Steve



Steve Miller | Senior Planner/Project Manager
6445 SW Fallbrook Place, Suite 100, Beaverton, OR 97008
Ofc: 503.746.8812 Cell: 541.318.7487 | www.emeriodesign.com

EMERIO *Design*

CIVIL ENGINEERS, SURVEYORS & PLANNERS

September 11, 2018

Willamette Neighborhood Association

Andrew Mallory, President

RE: 22870 Weatherhill Road – Proposed 12 Lot Residential Subdivision

Dear Mr. Mallory,

Emerio Design, LLC acts on behalf of the Schultz Development Group (SDG), regarding the planned subdivision of a property located at 22870 Weatherhill Road. The location of the property is shown on the attached map. The tax lot number for the property is 2S1E35B 405. The property is located inside the City of West Linn's boundaries and it is zoned R-7 for Single Family Dwellings.

Schultz Development Group is considering a subdivision of the 2.57 acre property in order to create twelve (12) new single-family residential lots. Each of the twelve proposed lots will meet or exceed 7,000 square feet, which is the minimum lot size within the R-7 zoning district.

Before finalizing an application to the City's Planning Department for the proposed subdivision, we would like to take the opportunity to discuss this proposal with the members of the Savana Oaks Neighborhood Association and property owners residing within 500 feet of the property.

The purpose of this meeting will be to provide a forum for surrounding property owners and residents to review the proposal and identify issues so they can be given proper consideration. These meetings are required so the public can share any specific information about the property with the project team. The project team will try to answer questions related to how the project meets the relevant development standards consistent with West Linn's land use regulations.

We would like to formally request a meeting with the Savana Oaks Neighborhood Association. As we discussed via email, we would like to be included on the agenda of the Savana Oaks Neighborhood Association's October 2nd meeting. This is the date we will use to send notification to residents located within the City's 500-foot notification boundary. A copy of this letter also will be sent to the Willamette Neighborhood Association by certified mail since the neighborhood boundary is within 500 feet of this property.

Please note that this will be an informational meeting based upon preliminary development plans and that these plans may change before the application is submitted to the City. If the proposed meeting

is acceptable, we would ask that you please respond to this letter with an email to stevem@emeriodesign.com or phone call to my cell 541-318-7487.

Steve Miller

Sincerely,
Steve Miller
Principal Planner
Emerio Design, LLC

EMERIO *Design*

CIVIL ENGINEERS, SURVEYORS & PLANNERS

September 11, 2018

Savana Oaks Neighborhood Association

Ed Schwarz, President
2206 Tannler Drive
West Linn, OR 97068

RE: 22870 Weatherhill Road – Proposed 12 Lot Residential Subdivision

Dear Mr. Schwarz,

Emerio Design, LLC acts on behalf of the Schultz Development Group (SDG), regarding the planned subdivision of a property located at 22870 Weatherhill Road. The location of the property is shown on the attached map. The tax lot number for the property is 2S1E35B 405. The property is located inside the City of West Linn's boundaries and it is zoned R-7 for Single Family Dwellings.

Schultz Development Group is considering a subdivision of the 2.57 acre property in order to create twelve (12) new single-family residential lots. Each of the twelve proposed lots will meet or exceed 7,000 square feet, which is the minimum lot size within the R-7 zoning district.

Before finalizing an application to the City's Planning Department for the proposed subdivision, we would like to take the opportunity to discuss this proposal with the members of the Savana Oaks Neighborhood Association and property owners residing within 500 feet of the property.

The purpose of this meeting will be to provide a forum for surrounding property owners and residents to review the proposal and identify issues so they can be given proper consideration. These meetings are required so the public can share any specific information about the property with the project team. The project team will try to answer questions related to how the project meets the relevant development standards consistent with West Linn's land use regulations.

We would like to formally request a meeting with the Savana Oaks Neighborhood Association. As we discussed via email, we would like to be included on the agenda of the Savana Oaks Neighborhood Association's October 2nd meeting. This is the date we will use to send notification to residents located within the City's 500-foot notification boundary. A copy of this letter also will be sent to the Willamette Neighborhood Association by certified mail since the neighborhood boundary is within 500 feet of this property.

Please note that this will be an informational meeting based upon preliminary development plans and that these plans may change before the application is submitted to the City. If the proposed meeting is acceptable, we would ask that you please respond to this letter with an email to stevem@emeriodesign.com or phone call to my cell 541-318-7487.

Sincerely,
Steve Miller, Principal Planner
Emerio Design, LLC

EMERIO *Design*

CIVIL ENGINEERS, SURVEYORS & PLANNERS

September 11, 2018

Savana Oaks Neighborhood Association

Roberta Schwarz, President Designee
2206 Tannler Drive
West Linn, OR 97068

RE: 22870 Weatherhill Road – Proposed 12 Lot Residential Subdivision

Dear Mrs. Schwarz,

Emerio Design, LLC acts on behalf of the Schultz Development Group (SDG), regarding the planned subdivision of a property located at 22870 Weatherhill Road. The location of the property is shown on the attached map. The tax lot number for the property is 2S1E35B 405. The property is located inside the City of West Linn's boundaries and it is zoned R-7 for Single Family Dwellings.

Schultz Development Group is considering a subdivision of the 2.57 acre property in order to create twelve (12) new single-family residential lots. Each of the twelve proposed lots will meet or exceed 7,000 square feet, which is the minimum lot size within the R-7 zoning district.

Before finalizing an application to the City's Planning Department for the proposed subdivision, we would like to take the opportunity to discuss this proposal with the members of the Savana Oaks Neighborhood Association and property owners residing within 500 feet of the property.

The purpose of this meeting will be to provide a forum for surrounding property owners and residents to review the proposal and identify issues so they can be given proper consideration. These meetings are required so the public can share any specific information about the property with the project team. The project team will try to answer questions related to how the project meets the relevant development standards consistent with West Linn's land use regulations.

We would like to formally request a meeting with the Savana Oaks Neighborhood Association. As we discussed via email, we would like to be included on the agenda of the Savana Oaks Neighborhood Association's October 2nd meeting. This is the date we will use to send notification to residents located within the City's 500-foot notification boundary. A copy of this letter also will be sent to the Willamette Neighborhood Association by certified mail since the neighborhood boundary is within 500 feet of this property.

Please note that this will be an informational meeting based upon preliminary development plans and that these plans may change before the application is submitted to the City. If the proposed meeting is acceptable, we would ask that you please respond to this letter with an email to stevem@emeriodesign.com or phone call to my cell 541-318-7487.

Sincerely,
Steve Miller, Principal Planner
Emerio Design, LLC

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Savannah Oaks NA
Ed Schwarz, President
2206 Tanner Dr.
West Linn, OR 97068



9590 9402 2858 7069 6726 68

2. Article Number (Transfer from service label)

7014 2870 0000 1771 7226

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature *Roberta Schwarz for*
 Fel Schwarz Agent
 Addressee

B. Received by (Printed Name) *Roberta Schwarz* C. Date of Delivery *9-18-18*

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
- | | |
|--|---|
| <input type="checkbox"/> Adult Signature | <input type="checkbox"/> Priority Mail Express® |
| <input type="checkbox"/> Adult Signature Restricted Delivery | <input type="checkbox"/> Registered Mail™ |
| <input type="checkbox"/> Certified Mail® | <input type="checkbox"/> Registered Mail Restricted Delivery |
| <input type="checkbox"/> Certified Mail Restricted Delivery | <input type="checkbox"/> Return Receipt for Merchandise |
| <input type="checkbox"/> Collect on Delivery | <input type="checkbox"/> Signature Confirmation™ |
| <input type="checkbox"/> Collect on Delivery Restricted Delivery | <input type="checkbox"/> Signature Confirmation Restricted Delivery |
| <input type="checkbox"/> Insured Mail | |
| <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500) | |

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Roberta Schwarz
2206 Tanner Dr.
West Linn, OR 97068



9590 9402 2858 7069 6726 51

2. Article Number (Transfer from service label)

7014 2870 0000 1771 7233

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature *Roberta Schwarz*
 Roberta Schwarz Agent
 Addressee

B. Received by (Printed Name) *Roberta Schwarz* C. Date of Delivery *9-18-18*

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
- | | |
|--|---|
| <input type="checkbox"/> Adult Signature | <input type="checkbox"/> Priority Mail Express® |
| <input type="checkbox"/> Adult Signature Restricted Delivery | <input type="checkbox"/> Registered Mail™ |
| <input type="checkbox"/> Certified Mail® | <input type="checkbox"/> Registered Mail Restricted Delivery |
| <input type="checkbox"/> Certified Mail Restricted Delivery | <input type="checkbox"/> Return Receipt for Merchandise |
| <input type="checkbox"/> Collect on Delivery | <input type="checkbox"/> Signature Confirmation™ |
| <input type="checkbox"/> Collect on Delivery Restricted Delivery | <input type="checkbox"/> Signature Confirmation Restricted Delivery |
| <input type="checkbox"/> Insured Mail | |
| <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500) | |

Domestic Return Receipt

7014 2870 0000 1771 7233

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

WEST LINN, OR 97068
OFFICIAL USE

Postage	\$3.45
Certified Fee	\$2.75
Return Receipt Fee (Endorsement Required)	\$0.00
Restricted Delivery Fee (Endorsement Required)	\$0.00
	\$0.50
Total Postage & Fees	\$6.70

0019
09
Postmark Here
09/12/2018

Sent To *Roberta Schwarz*
Street & Apt. No., or PO Box No. *2206 Tannler Dr.*
City, State, ZIP+4 *West Linn, OR 97068*
PS Form 3800, July 2014 See Reverse for Instructions

7014 2870 0000 1771 7226

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

WEST LINN, OR 97068
OFFICIAL USE

Postage	\$3.45
Certified Fee	\$2.75
Return Receipt Fee (Endorsement Required)	\$0.00
Restricted Delivery Fee (Endorsement Required)	\$0.00
	\$0.50
Total Postage & Fees	\$6.70

0019
09
Postmark Here
09/12/2018

Sent To *Savana Oaks NA-Ed Schwarz*
Street & Apt. No., or PO Box No. *2206 Tannler Dr.*
City, State, ZIP+4 *West Linn, OR 97068*
PS Form 3800, July 2014 See Reverse for Instructions

Bobby Maslen
12205 SW Tualatin Rd Ste 240
Tualatin, OR 97062

Bobby Maslen
12205 SW Tualatin Rd Ste 240
Tualatin, OR 97062

Simpson Realty Group Lp
8110 East Union Ave
Denver, CO 80237

Main Source Management LLC
841 SW Gaines St Unit 904
Portland, OR 97239

Sequoia Heights Capital Partners
LLC
1101 Fifth Ave Ste 300
San Rafael, CA 94901

David Hardy
22915 S Weatherhill Rd
West Linn, OR 97068

Robert Bauer
23000 S Bland Cir
West Linn, OR 97068

John Nilsen
23010 Bland Cir
West Linn, OR 97068

Main Source Management LLC
841 SW Gaines St Unit 904
Portland, OR 97239

Main Source Management LLC
841 SW Gaines St Unit 904
Portland, OR 97239

Robert Bauer
23000 S Bland Cir
West Linn, OR 97068

City Of West Linn
22500 Salamo Rd #600
West Linn, OR 97068

Edwin Winkler III
19363 Willamette Dr
West Linn, OR 97068

Simpson Realty Group Lp
8110 East Union Ave
Denver, CO 80237

David Landau
23065 Bland Cir
West Linn, OR 97068

Kling Daniel C Trustee
23056 Bland Cir
West Linn, OR 97068

Jay Hemmady
23060 Bland Cir
West Linn, OR 97068

Musalo Robert Trustee
2115 Fircrest Dr
West Linn, OR 97068

Jon Nichols
2125 Fircrest Dr
West Linn, OR 97068

Stacey Malcolm
2135 Fircrest Dr
West Linn, OR 97068

Jiang Yu
2150 Fircrest Dr
West Linn, OR 97068

Tad Remington
2140 Fircrest Dr
West Linn, OR 97068

Thomas Corry
2130 Fircrest Dr
West Linn, OR 97068

David Huberty
2120 Fircrest Dr
West Linn, OR 97068

David Huberty
2120 Fircrest Dr
West Linn, OR 97068

Michael Jones
23025 Bland Cir
West Linn, OR 97068

Yang Zhuang
3491 Cascade Ter
West Linn, OR 97068

Amanda Hwang
23043 Bland Cir
West Linn, OR 97068

Steven Haney
2211 Crestview Dr
West Linn, OR 97068

Theron Jensen
2215 Crestview Dr
West Linn, OR 97068

Donald Gabel
2225 Crestview Dr
West Linn, OR 97068

Erik Emerick
2235 Crestview Dr
West Linn, OR 97068

Michael Howard
2245 Crestview Dr
West Linn, OR 97068

Le Hong
2160 Fircrest Dr
West Linn, OR 97068

Jeremy Rower
2255 Crestview Dr
West Linn, OR 97068

Darren Karr
207 N Payne St
Alexandria, VA 22314

David Quesnel
2275 Crestview Dr
West Linn, OR 97068

Jie Zhang
3840 NW 118th Pl
Portland, OR 97229

Nathan Wolf
2295 Crestview Dr
West Linn, OR 97068

Charles Mathews III
2305 Crestview Dr
West Linn, OR 97068

Wade Radcliffe
2300 Crestview Dr
West Linn, OR 97068

Brian Bell
2290 Crestview Dr
West Linn, OR 97068

Edison Ghorbani-Elizeh
2280 Crestview Dr
West Linn, OR 97068

Thomas Sobotta
2270 Crestview Dr
West Linn, OR 97068

David Jacobs
2260 Crestview Dr
West Linn, OR 97068

Chan John H Trustee
2250 Crestview Dr
West Linn, OR 97068

Lin Luo
2220 Crestview Dr
West Linn, OR 97068

David Ritter
23045 Bland Cir
West Linn, OR 97068

Richard Mreen
23049 Bland Cir
West Linn, OR 97068

Cory Huot
21915 SW Stafford Rd
Tualatin, OR 97062

Vikram Shevde
23063 Bland Cir
West Linn, OR 97068

Posey Michael E Trustee
628 Marlin Ct
Redwood City, CA 94065

Lorentz Bruun
23069 Bland Cir
West Linn, OR 97068

Terry Griffith
23083 Bland Cir
West Linn, OR 97068

Ann Hillson
23075 Bland Cir
West Linn, OR 97068

Troy Pendergraft
23073 Bland Cir
West Linn, OR 97068

Sean Driggers
2310 Crestview Dr
West Linn, OR 97068

Rozita Walsh
2320 Crestview Dr
West Linn, OR 97068

Abhishek Manohar
2330 Crestview Dr
West Linn, OR 97068

City Of West Linn
22500 Salamo Rd #600
West Linn, OR 97068

City Of West Linn
22500 Salamo Rd #600
West Linn, OR 97068

City Of West Linn
22500 Salamo Rd #600
West Linn, OR 97068

Tad Remington
2140 Fircrest Dr
West Linn, OR 97068

City Of West Linn
22500 Salamo Rd #600
West Linn, OR 97068

Karin Schaffer
2512 Crestview Dr
West Linn, OR 97068

Jennifer Pakula
2500 Crestview Dr
West Linn, OR 97068

Main Source Management LLC
841 SW Gaines St Unit 904
Portland, OR 97239

Christopher Fry
2471 Crestview Dr
West Linn, OR 97068

James Betty III
2483 Crestview Dr
West Linn, OR 97068

Robert Conlin
2498 Crestview Dr
West Linn, OR 97068

Charles Parker
2486 Crestview Dr
West Linn, OR 97068

C Briggs
2474 Crestview Dr
West Linn, OR 97068

Klopfenstein Kurt Von Trustee
23103 Bland Cir
West Linn, OR 97068

Kuliti Shiferaw
2944 Sunbreak Ln
West Linn, OR 97068

Susan Walter
2956 Sunbreak Ln
West Linn, OR 97068

Michael Leonard
2469 Crestview Dr
West Linn, OR 97068

Willis Roc W Trustee
2455 Crestview Dr
West Linn, OR 97068

Mei Su
2443 Crest View Dr
West Linn, OR 97068

Parker Warren
2442 Crestview Dr
West Linn, OR 97068

Jessica Reiland
2454 Crest View Dr
West Linn, OR 97068

Allan Klinck
2466 Crest View Dr
West Linn, OR 97068

William Lorenz
2100 Satter St
West Linn, OR 97068

Daniel Floyd
2148 Satter St
West Linn, OR 97068

Bryan Robinson
2162 Satter St
West Linn, OR 97068

Matthew Craver
2179 Satter St
West Linn, OR 97068

James Gardner
2167 Satter St
West Linn, OR 97068

Cory Grant
2155 Satter St
West Linn, OR 97068

Jared Young
2149 Satter St
West Linn, OR 97068

Daniel Schleef
2137 Satter St
West Linn, OR 97068

Milette Oliveros
2113 Satter St
West Linn, OR 97068

David Fogle
2125 Satter St
West Linn, OR 97068

Douglas Keller
2101 Satter St
West Linn, OR 97068

City Of West Linn
22500 Salamo Rd
West Linn, OR 97068

Thomas Horvath
2010 De Vries Way
West Linn, OR 97068

Jennie Snow
2022 De Vries Way
West Linn, OR 97068

Ankur Shah
2034 De Vries Way
West Linn, OR 97068

Christopher Thompson
2462 Satter St
West Linn, OR 97068

William Blount
2450 Satter St
West Linn, OR 97068

Stephen Kelly
2467 Satter St
West Linn, OR 97068

Ashley Lockridge
2479 Satter St
West Linn, OR 97068

Nicole Budden
2491 Satter St
West Linn, OR 97068

Jason Ferrell
2503 Satter St
West Linn, OR 97068

David Drochner
2515 Satter St
West Linn, OR 97068

David Brodsky
2510 Satter St
West Linn, OR 97068

Dean McDonald
2498 Satter St
West Linn, OR 97068

Zhoudong Jia
2049 De Vries Way
West Linn, OR 97068

Gennaro Iervolino
6290 Haverhill Ct
West Linn, OR 97068

Steven Hoffen
2025 De Vries Way
West Linn, OR 97068

Erik Daniels
2201 De Vries Ln
West Linn, OR 97068

Joshua Wright
2213 De Vries Ln
West Linn, OR 97068

Brian Harrison
2225 De Vries Ln
West Linn, OR 97068

Lin Luo
1927 NW Jasmine Ln
Portland, OR 97229

Matthew Pearce
22848 Weatherhill Rd
West Linn, OR 97068

David Phillips
22852 Weatherhill Rd
West Linn, OR 97068

Yao Mai
22856 Weatherhill Rd
West Linn, OR 97068



MEETING NOTICE
PROPOSAL: 2014 Meeting Library
DATE: 09/17/14
TIME: 10:00 AM
PLACE: 2014 Meeting Library
CONTACT: 2014 Meeting Library
REMARKS: 2014 Meeting Library

575

MEETING NOTICE

NEIGHBORHOOD MEETING

PROPOSAL: 12-LOT RESIDENTIAL SUBDIVISION

MEETING DATE: TUESDAY OCTOBER 2nd

TIME: 7:00 PM

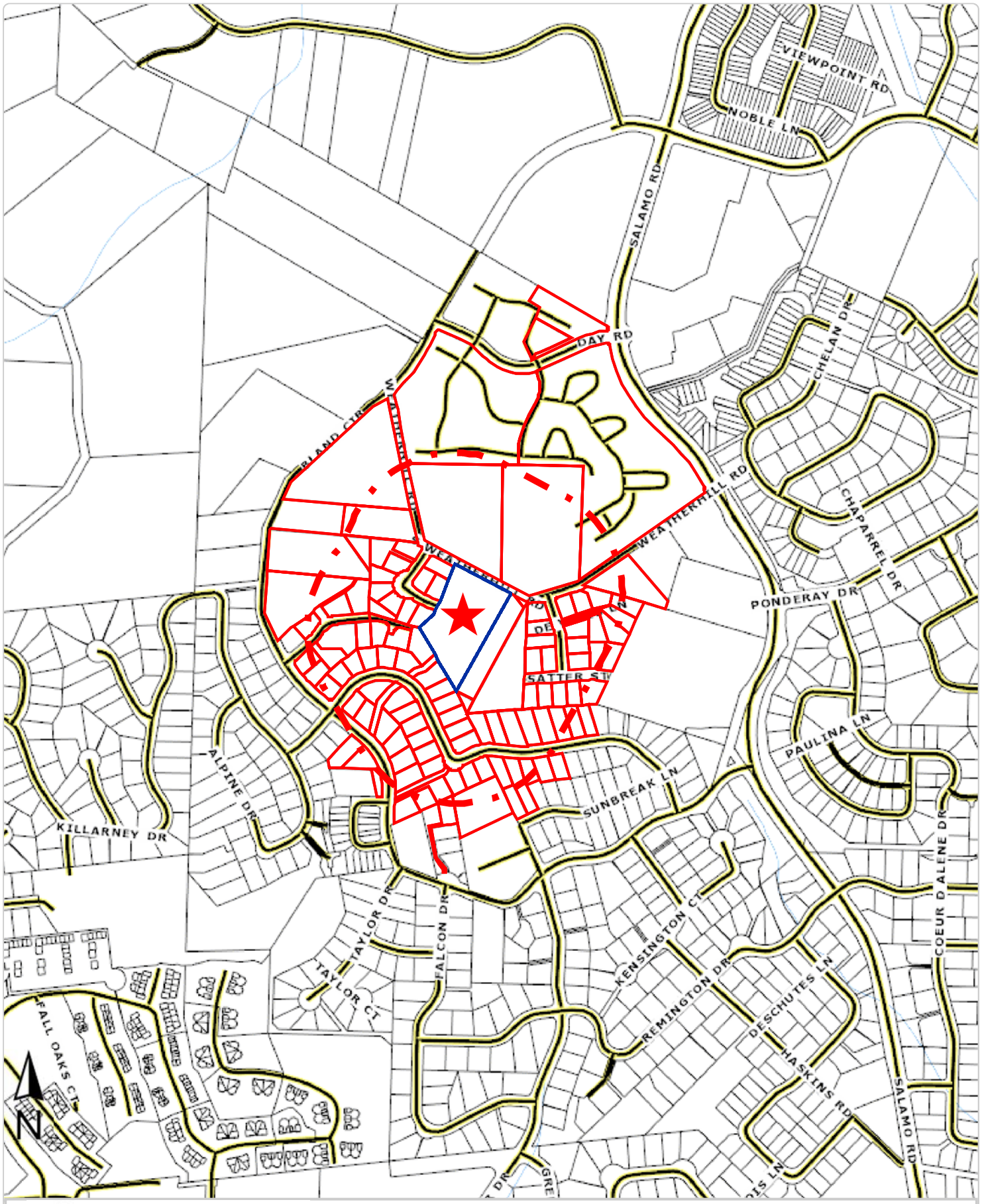
PLACE: COMMUNITY ROOM TV&R FIRE STATION
1860 WILLAMETTE FALLS DR.

CONTACT PERSON: STEVE MILLER

PHONE NUMBER: (541) 318-7487

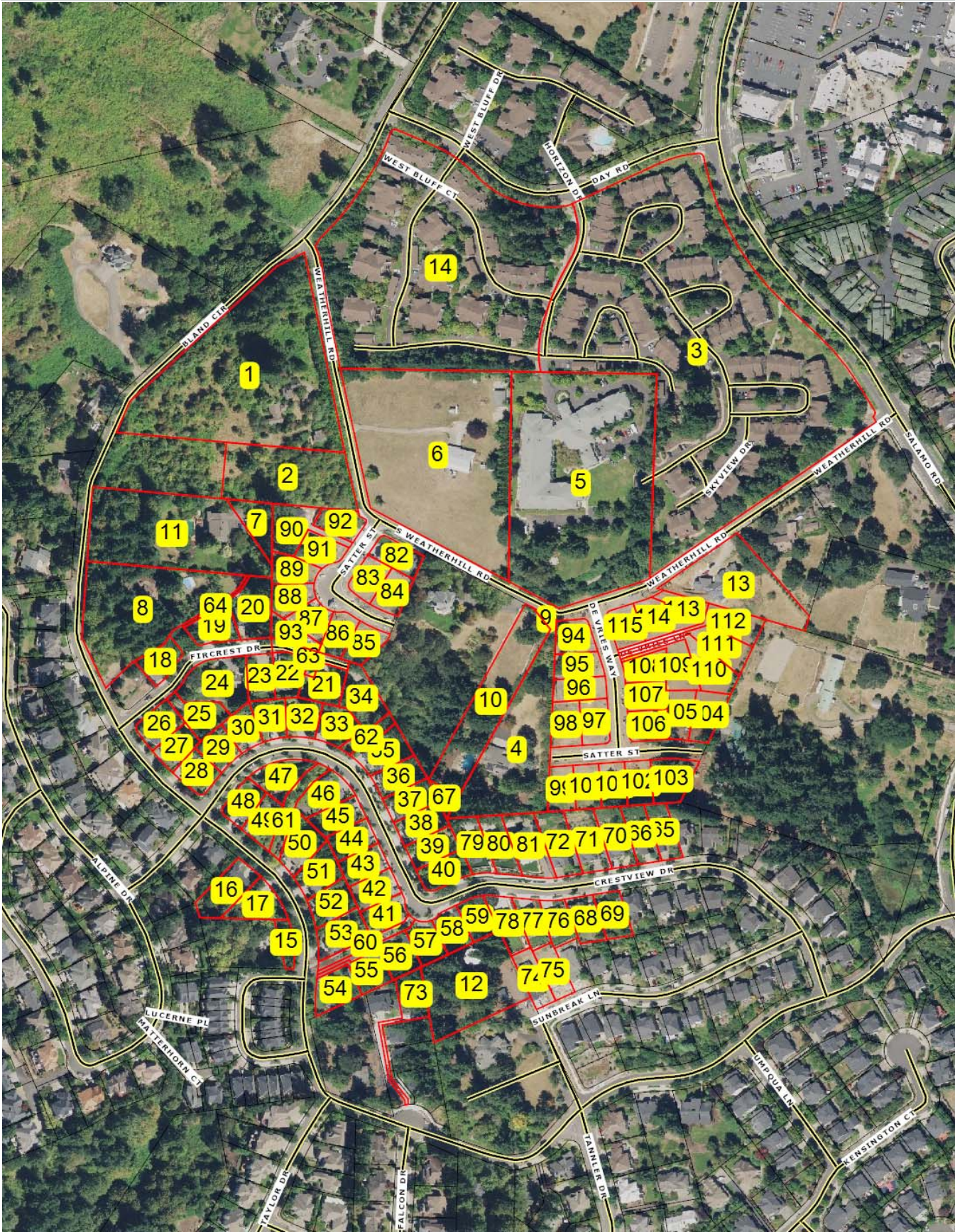


MEETING NOTICE
PROPOSAL: 12 LOT RESIDENTIAL
SUBDIVISION:
MEETING DATE: Tuesday, October 2nd
TIME: 7:00 pm
PLACE: Community Center
CONTACT PERSON: Steve Jones
PHONE NUMBER: (408) 344-7187



This map/plat is being furnished as an aid in locating the herein described land in relation to adjoining streets, natural boundaries and other land, and is not a survey of the land depicted. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the company does not insure dimensions, distances, location of easements, acreage or other matters shown thereon.

Walking Farm Identification Map



Farm Search Criteria

Parcel Type Real Property,

Averages

Sale Price \$725,322.32
 Loan Amt \$468,310.94
 Sq Ft 3,490 SqFt
 Assessed Total Value \$600,228.48
 Price/SqFt: \$220.70



00391702

1

Parcel #	00391702	Tax Account	21E26C 01500
Site Address #	22910 Weatherhill Rd West Linn OR 97068	Acres	3.54 Acres
Year Built	1925	Assessed Total Value	\$405,214.00
Rec. Date	12/29/2004	Sale Price	
Bedrooms	3	Bathrooms	1.00
Total Rooms		Sq Ft	1,766 SqFt
Owner	Maslen, Bobby Lynn		

2

Parcel #	00391720	Tax Account	21E26C 01502
Site Address #	West Linn OR 97068	Acres	1.03 Acres
Year Built		Assessed Total Value	\$118,624.00
Rec. Date	12/29/2004	Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	Maslen, Bobby Lynn		



00391837

3

Parcel #	00391837	Tax Account	21E26D 01200
Site Address #	22201 Skyview Dr West Linn OR 97068	Acres	10.62 Acres
Year Built		Assessed Total Value	\$16,403,365.00
Rec. Date	6/22/2004	Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	1,008 SqFt
Owner	Simpson Realty Group Lp		

4

Parcel #	00405127	Tax Account	21E35AB08500
Site Address #	22864 S Weatherhill Rd West Linn OR 97068	Acres	1.38 Acres
Year Built	1978	Assessed Total Value	\$713,303.00
Rec. Date	7/9/2018	Sale Price	\$1,300,000.00
Bedrooms	5	Bathrooms	3.00
Total Rooms		Sq Ft	3,866 SqFt
Owner	Main Source Management LLC		



00405341

5

Parcel #	00405341	Tax Account	21E35B 00100
Site Address #	23000 Horizon Dr West Linn OR 97068	Acres	4.48 Acres
Year Built		Assessed Total Value	\$9,391,102.00
Rec. Date	5/12/2008	Sale Price	\$9,400,000.00
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	1,838 SqFt
Owner	Sequoia Heights Capital Partners LLC		



6
Parcel # 00405350 **Tax Account** 21E35B 00101
Site Address # 22915 S Weatherhill Rd **Acres** 3.75 Acres
West Linn OR 97068
Year Built 1984 **Assessed Total Value** \$428,641.00
Rec. Date 9/27/2013 **Sale Price**
Bedrooms 3 **Bathrooms** 3.50
Total Rooms **Sq Ft** 3,960 SqFt
Owner Hardy, David L

7
Parcel # 00405378 **Tax Account** 21E35B 00201
Site Address # West Linn OR 97068 **Acres** 0.20 Acres
Year Built **Assessed Total Value** \$14,813.00
Rec. Date 8/24/2012 **Sale Price**
Bedrooms **Bathrooms**
Total Rooms **Sq Ft**
Owner Bauer, Robert L



8
Parcel # 00405396 **Tax Account** 21E35B 00400
Site Address # 23010 Bland Cir **Acres** 1.57 Acres
West Linn OR 97068
Year Built 1991 **Assessed Total Value** \$614,424.00
Rec. Date 4/5/1995 **Sale Price** \$380,000.00
Bedrooms 4 **Bathrooms** 2.50
Total Rooms **Sq Ft** 3,267 SqFt
Owner Nilsen, John

9
Parcel # 00405403 **Tax Account** 21E35B 00401
Site Address # OR 97068 **Acres** 0.02 Acres
Year Built **Assessed Total Value** \$2,161.00
Rec. Date 7/9/2018 **Sale Price** \$1,300,000.00
Bedrooms **Bathrooms**
Total Rooms **Sq Ft**
Owner Main Source Management LLC

10
Parcel # 00405421 **Tax Account** 21E35B 00403
Site Address # OR 97068 **Acres** 0.95 Acres
Year Built **Assessed Total Value** \$69,838.00
Rec. Date 7/9/2018 **Sale Price** \$1,300,000.00
Bedrooms **Bathrooms**
Total Rooms **Sq Ft**
Owner Main Source Management LLC



11

Parcel #	00405430	Tax Account	21E35B 00404
Site Address #	23000 Bland Cir West Linn OR 97068	Acres	1.72 Acres
Year Built	1981	Assessed Total Value	\$716,775.00
Rec. Date	8/24/2012	Sale Price	
Bedrooms	5	Bathrooms	4.00
Total Rooms		Sq Ft	5,470 SqFt
Owner	Bauer, Robert L		

12

Parcel #	00405494	Tax Account	21E35B 00504
Site Address #	23120 Bland Cir West Linn OR 97068	Acres	1.01 Acres
Year Built		Assessed Total Value	\$841,930.00
Rec. Date		Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	City Of West Linn		

13

Parcel #	01405599	Tax Account	21E35AB08600
Site Address #	22844 Weatherhill Rd West Linn OR 97068	Acres	0.92 Acres
Year Built	2015	Assessed Total Value	\$758,395.00
Rec. Date	9/16/2014	Sale Price	\$318,000.00
Bedrooms	4	Bathrooms	4.50
Total Rooms		Sq Ft	6,913 SqFt
Owner	Winkler, Edwin W III		



14

Parcel #	01696784	Tax Account	21E26D 01001
Site Address #	22880 West Bluff Dr Bldg Jj West Linn OR 97068	Acres	0.46 Acres
Year Built		Assessed Total Value	\$676,988.00
Rec. Date	6/22/2004	Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	1,688 SqFt
Owner	Simpson Realty Group Lp		

15

Parcel #	01830674	Tax Account	21E35BA00190
Site Address #	West Linn OR 97068	Acres	0.09 Acres
Year Built		Assessed Total Value	\$11,814.00
Rec. Date	7/1/1998	Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	Landau, David		



16

Parcel # 01858341
Site Address # 23056 Bland Cir
West Linn OR 97068
Year Built 2001
Rec. Date 11/15/2016
Bedrooms 5
Total Rooms
Owner Kling Daniel C Trustee

Tax Account 21E35BA04400
Acres 0.27 Acres
Assessed Total Value \$444,385.00
Sale Price
Bathrooms 5.00
Sq Ft 3,737 SqFt



17

Parcel # 01858350
Site Address # 23060 Bland Cir
West Linn OR 97068
Year Built 2002
Rec. Date 6/20/2005
Bedrooms 5
Total Rooms
Owner Hemmady, Jay S

Tax Account 21E35BA04500
Acres 0.22 Acres
Assessed Total Value \$501,500.00
Sale Price \$583,000.00
Bathrooms 4.00
Sq Ft 3,948 SqFt



18

Parcel # 01858591
Site Address # 2115 Fircrest Dr
West Linn OR 97068
Year Built 2000
Rec. Date 3/5/2007
Bedrooms 4
Total Rooms
Owner Musalo Robert Trustee

Tax Account 21E35BA06900
Acres 0.16 Acres
Assessed Total Value \$503,701.00
Sale Price
Bathrooms 2.50
Sq Ft 2,832 SqFt



19

Parcel # 01858608
Site Address # 2125 Fircrest Dr
West Linn OR 97068
Year Built 2001
Rec. Date 8/15/2013
Bedrooms 4
Total Rooms
Owner Nichols, Jon R

Tax Account 21E35BA07000
Acres 0.20 Acres
Assessed Total Value \$478,990.00
Sale Price \$531,000.00
Bathrooms 2.50
Sq Ft 3,336 SqFt



20

Parcel # 01858617
Site Address # 2135 Fircrest Dr
West Linn OR 97068
Year Built 2002
Rec. Date 5/21/2012
Bedrooms 4
Total Rooms
Owner Malcolm, Stacey Rae

Tax Account 21E35BA07100
Acres 0.31 Acres
Assessed Total Value \$501,744.00
Sale Price
Bathrooms 2.50
Sq Ft 4,014 SqFt



21

Parcel # 01858626
Site Address # 2150 Fircrest Dr
West Linn OR 97068
Year Built 2001
Rec. Date 6/27/2001
Bedrooms 4
Total Rooms
Owner Yu, Jiang

Tax Account 21E35BA07200
Acres 0.20 Acres
Assessed Total Value \$488,961.00
Sale Price \$91,500.00
Bathrooms 3.50
Sq Ft 3,190 SqFt



22

Parcel # 01858635
Site Address # 2140 Fircrest Dr
West Linn OR 97068
Year Built 2001
Rec. Date 5/7/2008
Bedrooms 5
Total Rooms
Owner Remington, Tad W

Tax Account 21E35BA07300
Acres 0.18 Acres
Assessed Total Value \$647,505.00
Sale Price \$825,000.00
Bathrooms 3.50
Sq Ft 4,797 SqFt



23

Parcel # 01858644
Site Address # 2130 Fircrest Dr
West Linn OR 97068
Year Built 2001
Rec. Date 6/17/2005
Bedrooms 4
Total Rooms
Owner Corry, Thomas B

Tax Account 21E35BA07400
Acres 0.17 Acres
Assessed Total Value \$676,950.00
Sale Price \$750,000.00
Bathrooms 3.50
Sq Ft 4,992 SqFt



24

Parcel # 01858653
Site Address # 2120 Fircrest Dr
West Linn OR 97068
Year Built 1988
Rec. Date 9/28/2007
Bedrooms 4
Total Rooms
Owner Huberty, David P

Tax Account 21E35BA07500
Acres 0.41 Acres
Assessed Total Value \$720,967.00
Sale Price \$996,000.00
Bathrooms 4.00
Sq Ft 4,805 SqFt

25

Parcel # 01858662
Site Address # 2110 Fircrest Dr
West Linn OR 97068
Year Built
Rec. Date 9/28/2007
Bedrooms
Total Rooms
Owner Huberty, David P

Tax Account 21E35BA07600
Acres 0.21 Acres
Assessed Total Value \$97,214.00
Sale Price \$996,000.00
Bathrooms
Sq Ft



26

Parcel # 01858671
Site Address # 23025 Bland Cir
West Linn OR 97068
Year Built 1999
Rec. Date 8/3/2017
Bedrooms 3
Total Rooms
Owner Jones, Michael K

Tax Account 21E35BA07700
Acres 0.18 Acres
Assessed Total Value \$383,118.00
Sale Price \$515,000.00
Bathrooms 2.50
Sq Ft 2,345 SqFt



27

Parcel # 01858680
Site Address # 23035 Bland Cir
West Linn OR 97068
Year Built 1999
Rec. Date 5/1/2002
Bedrooms 3
Total Rooms
Owner Zhuang, Yang

Tax Account 21E35BA07800
Acres 0.16 Acres
Assessed Total Value \$429,082.00
Sale Price \$359,000.00
Bathrooms 2.50
Sq Ft 2,833 SqFt



28

Parcel # 01858699
Site Address # 23043 Bland Cir
West Linn OR 97068
Year Built 2001
Rec. Date 2/28/2013
Bedrooms 4
Total Rooms
Owner Hwang, Amanda Y

Tax Account 21E35BA07900
Acres 0.17 Acres
Assessed Total Value \$474,493.00
Sale Price \$432,000.00
Bathrooms 2.50
Sq Ft 3,375 SqFt



29

Parcel # 01858706
Site Address # 2211 Crestview Dr
West Linn OR 97068
Year Built 2003
Rec. Date 12/8/2014
Bedrooms 4
Total Rooms
Owner Haney, Steven J

Tax Account 21E35BA08000
Acres 0.16 Acres
Assessed Total Value \$380,543.00
Sale Price \$507,000.00
Bathrooms 3.00
Sq Ft 2,893 SqFt



30

Parcel # 01858715
Site Address # 2215 Crestview Dr
West Linn OR 97068
Year Built 1999
Rec. Date 6/8/2012
Bedrooms 3
Total Rooms
Owner Jensen, Theron K

Tax Account 21E35BA08100
Acres 0.16 Acres
Assessed Total Value \$380,119.00
Sale Price \$322,000.00
Bathrooms 2.00
Sq Ft 2,249 SqFt



31

Parcel # 01858724
Site Address # 2225 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 4/30/2004
Bedrooms 4
Total Rooms
Owner Gabel, Donald W

Tax Account 21E35BA08200
Acres 0.17 Acres
Assessed Total Value \$428,650.00
Sale Price \$415,000.00
Bathrooms 2.50
Sq Ft 3,334 SqFt



32

Parcel # 01858733
Site Address # 2235 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 5/20/2013
Bedrooms 5
Total Rooms
Owner Emerick, Erik E

Tax Account 21E35BA08300
Acres 0.18 Acres
Assessed Total Value \$464,451.00
Sale Price \$490,000.00
Bathrooms 3.00
Sq Ft 3,922 SqFt



33

Parcel # 01858742
Site Address # 2245 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 12/17/2015
Bedrooms 4
Total Rooms
Owner Howard, Michael J

Tax Account 21E35BA08400
Acres 0.20 Acres
Assessed Total Value \$428,797.00
Sale Price \$510,000.00
Bathrooms 2.50
Sq Ft 3,466 SqFt



34

Parcel # 01858751
Site Address # 2160 Fircrest Dr
West Linn OR 97068
Year Built 2001
Rec. Date 11/24/2010
Bedrooms 4
Total Rooms
Owner Hong, Le

Tax Account 21E35BA08500
Acres 0.27 Acres
Assessed Total Value \$590,062.00
Sale Price \$490,000.00
Bathrooms 3.50
Sq Ft 3,914 SqFt



35

Parcel # 01858760
Site Address # 2255 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 5/2/2006
Bedrooms 5
Total Rooms
Owner Rower, Jeremy A

Tax Account 21E35BA08600
Acres 0.23 Acres
Assessed Total Value \$458,948.00
Sale Price \$600,000.00
Bathrooms 3.00
Sq Ft 3,922 SqFt

**# 36**

Parcel # 01858779
Site Address # 2265 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 8/16/2005
Bedrooms 4
Total Rooms
Owner Karr, Darren

Tax Account 21E35BA08700
Acres 0.18 Acres
Assessed Total Value \$429,806.00
Sale Price \$523,848.00
Bathrooms 2.50
Sq Ft 3,484 SqFt

**# 37**

Parcel # 01858788
Site Address # 2275 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 6/30/2003
Bedrooms 5
Total Rooms
Owner Quesnel, David A

Tax Account 21E35BA08800
Acres 0.18 Acres
Assessed Total Value \$447,317.00
Sale Price \$433,900.00
Bathrooms 3.00
Sq Ft 3,866 SqFt

**# 38**

Parcel # 01858797
Site Address # 2285 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 5/15/2014
Bedrooms 3
Total Rooms
Owner Zhang, Jie

Tax Account 21E35BA08900
Acres 0.18 Acres
Assessed Total Value \$533,439.00
Sale Price \$638,000.00
Bathrooms 3.50
Sq Ft 4,265 SqFt

**# 39**

Parcel # 01858804
Site Address # 2295 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 4/30/2013
Bedrooms 3
Total Rooms
Owner Wolf, Nathan

Tax Account 21E35BA09000
Acres 0.18 Acres
Assessed Total Value \$448,064.00
Sale Price \$490,000.00
Bathrooms 2.50
Sq Ft 3,379 SqFt

**# 40**

Parcel # 01858813
Site Address # 2305 Crestview Dr
West Linn OR 97068
Year Built 2000
Rec. Date 10/31/2001
Bedrooms 4
Total Rooms
Owner Mathews, Charles W III

Tax Account 21E35BA09100
Acres 0.18 Acres
Assessed Total Value \$482,591.00
Sale Price \$455,000.00
Bathrooms 2.50
Sq Ft 3,486 SqFt

**# 41**

Parcel # 01858822
Site Address # 2300 Crestview Dr
 West Linn OR 97068
Year Built 2000
Rec. Date 6/6/2000
Bedrooms 4
Total Rooms
Owner Radcliffe, Wade

Tax Account 21E35BA09200
Acres 0.17 Acres
Assessed Total Value \$478,904.00
Sale Price \$82,000.00
Bathrooms 3.00
Sq Ft 3,646 SqFt

**# 42**

Parcel # 01858831
Site Address # 2290 Crestview Dr
 West Linn OR 97068
Year Built 2000
Rec. Date 1/29/2001
Bedrooms 4
Total Rooms
Owner Bell, Brian N

Tax Account 21E35BA09300
Acres 0.18 Acres
Assessed Total Value \$442,142.00
Sale Price \$317,000.00
Bathrooms 2.50
Sq Ft 3,291 SqFt

**# 43**

Parcel # 01858840
Site Address # 2280 Crestview Dr
 West Linn OR 97068
Year Built 2000
Rec. Date 9/6/2001
Bedrooms 5
Total Rooms
Owner Ghorbani-Elizeh, Edison

Tax Account 21E35BA09400
Acres 0.18 Acres
Assessed Total Value \$519,108.00
Sale Price \$449,100.00
Bathrooms 3.50
Sq Ft 3,896 SqFt

**# 44**

Parcel # 01858859
Site Address # 2270 Crestview Dr
 West Linn OR 97068
Year Built 2001
Rec. Date 4/12/2012
Bedrooms 6
Total Rooms
Owner Sobotta, Thomas J

Tax Account 21E35BA09500
Acres 0.17 Acres
Assessed Total Value \$568,233.00
Sale Price \$457,000.00
Bathrooms 4.50
Sq Ft 3,921 SqFt

**# 45**

Parcel # 01858868
Site Address # 2260 Crestview Dr
 West Linn OR 97068
Year Built 2001
Rec. Date 7/9/2014
Bedrooms 6
Total Rooms
Owner Jacobs, David Alan

Tax Account 21E35BA09600
Acres 0.18 Acres
Assessed Total Value \$532,017.00
Sale Price \$650,000.00
Bathrooms 4.00
Sq Ft 4,052 SqFt



46
Parcel # 01858877
Site Address # 2250 Crestview Dr
 West Linn OR 97068
Year Built 2001
Rec. Date 9/28/2001
Bedrooms 3
Total Rooms
Owner Chan John H Trustee

Tax Account 21E35BA09700
Acres 0.22 Acres
Assessed Total Value \$395,018.00
Sale Price \$85,000.00
Bathrooms 2.50
Sq Ft 2,933 SqFt



47
Parcel # 01858886
Site Address # 2220 Crestview Dr
 West Linn OR 97068
Year Built 2002
Rec. Date 8/1/2014
Bedrooms 5
Total Rooms
Owner Luo, Lin

Tax Account 21E35BA09800
Acres 0.22 Acres
Assessed Total Value \$570,798.00
Sale Price \$729,500.00
Bathrooms 4.00
Sq Ft 4,521 SqFt



48
Parcel # 01858895
Site Address # 23045 Bland Cir
 West Linn OR 97068
Year Built 2001
Rec. Date 7/10/2007
Bedrooms 4
Total Rooms
Owner Ritter, David

Tax Account 21E35BA09900
Acres 0.16 Acres
Assessed Total Value \$422,833.00
Sale Price \$548,500.00
Bathrooms 2.50
Sq Ft 3,055 SqFt



49
Parcel # 01858902
Site Address # 23049 Bland Cir
 West Linn OR 97068
Year Built 2000
Rec. Date 6/11/2015
Bedrooms 4
Total Rooms
Owner Mreen, Richard

Tax Account 21E35BA10000
Acres 0.18 Acres
Assessed Total Value \$447,788.00
Sale Price
Bathrooms 2.50
Sq Ft 2,786 SqFt



50
Parcel # 01858911
Site Address # 23055 Bland Cir
 West Linn OR 97068
Year Built 2001
Rec. Date 1/11/2002
Bedrooms 4
Total Rooms
Owner Huot, Cory L

Tax Account 21E35BA10100
Acres 0.23 Acres
Assessed Total Value \$444,797.00
Sale Price \$379,594.00
Bathrooms 2.50
Sq Ft 3,069 SqFt

**# 51**

Parcel #	01858920	Tax Account	21E35BA10200
Site Address #	23063 Bland Cir West Linn OR 97068	Acres	0.22 Acres
Year Built	1999	Assessed Total Value	\$492,332.00
Rec. Date	6/11/2014	Sale Price	\$489,900.00
Bedrooms	4	Bathrooms	2.50
Total Rooms		Sq Ft	3,003 SqFt
Owner	Shevde, Vikram		

**# 52**

Parcel #	01858939	Tax Account	21E35BA10300
Site Address #	23067 Bland Cir West Linn OR 97068	Acres	0.20 Acres
Year Built	1999	Assessed Total Value	\$415,686.00
Rec. Date	9/5/2012	Sale Price	
Bedrooms	4	Bathrooms	2.50
Total Rooms		Sq Ft	2,608 SqFt
Owner	Posey Michael E Trustee		

**# 53**

Parcel #	01858948	Tax Account	21E35BA10400
Site Address #	23069 Bland Cir West Linn OR 97068	Acres	0.23 Acres
Year Built	1999	Assessed Total Value	\$418,486.00
Rec. Date	11/15/2001	Sale Price	\$328,000.00
Bedrooms	4	Bathrooms	2.50
Total Rooms		Sq Ft	2,519 SqFt
Owner	Bruun, Lorentz S		

**# 54**

Parcel #	01858957	Tax Account	21E35BA10500
Site Address #	23083 Bland Cir West Linn OR 97068	Acres	0.21 Acres
Year Built	1999	Assessed Total Value	\$409,351.00
Rec. Date	6/25/2003	Sale Price	\$350,000.00
Bedrooms		Bathrooms	1.00
Total Rooms		Sq Ft	2,664 SqFt
Owner	Griffith, Terry L		

**# 55**

Parcel #	01858966	Tax Account	21E35BA10600
Site Address #	23075 Bland Cir West Linn OR 97068	Acres	0.18 Acres
Year Built	2002	Assessed Total Value	\$415,457.00
Rec. Date	1/31/2003	Sale Price	\$346,170.00
Bedrooms	4	Bathrooms	2.00
Total Rooms		Sq Ft	3,278 SqFt
Owner	Hillson, Ann M		



56
Parcel # 01858975
Site Address # 23073 Bland Cir
West Linn OR 97068
Year Built 2002
Rec. Date 2/27/2004
Bedrooms 5
Total Rooms
Owner Pendergraft, Troy Allen

Tax Account 21E35BA10700
Acres 0.22 Acres
Assessed Total Value \$482,725.00
Sale Price \$427,000.00
Bathrooms 3.00
Sq Ft 3,956 SqFt



57
Parcel # 01858984
Site Address # 2310 Crestview Dr
West Linn OR 97068
Year Built 2002
Rec. Date 5/31/2012
Bedrooms 6
Total Rooms
Owner Driggers, Sean

Tax Account 21E35BA10800
Acres 0.17 Acres
Assessed Total Value \$471,227.00
Sale Price \$559,000.00
Bathrooms 4.00
Sq Ft 5,256 SqFt



58
Parcel # 01858993
Site Address # 2320 Crestview Dr
West Linn OR 97068
Year Built 2006
Rec. Date 5/20/2015
Bedrooms 5
Total Rooms
Owner Walsh, Rozita

Tax Account 21E35BA10900
Acres 0.16 Acres
Assessed Total Value \$446,784.00
Sale Price \$549,950.00
Bathrooms 3.50
Sq Ft 3,714 SqFt



59
Parcel # 01859000
Site Address # 2330 Crestview Dr
West Linn OR 97068
Year Built 2006
Rec. Date 12/23/2016
Bedrooms 3
Total Rooms
Owner Manohar, Abhishek A

Tax Account 21E35BA11000
Acres 0.16 Acres
Assessed Total Value \$429,896.00
Sale Price
Bathrooms 1.50
Sq Ft 3,517 SqFt

60
Parcel # 01859019
Site Address # West Linn OR 97068
Year Built
Rec. Date 5/1/1998
Bedrooms
Total Rooms
Owner City Of West Linn

Tax Account 21E35BA11100
Acres 0.12 Acres
Assessed Total Value \$2,957.00
Sale Price
Bathrooms
Sq Ft

# 61			
Parcel #	01859028	Tax Account	21E35BA11200
Site Address #	West Linn OR 97068	Acres	0.18 Acres
Year Built		Assessed Total Value	\$3,378.00
Rec. Date	5/1/1998	Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	City Of West Linn		

# 62			
Parcel #	01859037	Tax Account	21E35BA11300
Site Address #	West Linn OR 97068	Acres	0.10 Acres
Year Built		Assessed Total Value	\$2,897.00
Rec. Date		Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	City Of West Linn		

# 63			
Parcel #	01859046	Tax Account	21E35BA11400
Site Address #	West Linn OR 97068	Acres	0.14 Acres
Year Built		Assessed Total Value	
Rec. Date	5/8/2008	Sale Price	\$825,000.00
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	Remington, Tad W		

# 64			
Parcel #	01859055	Tax Account	21E35BA11500
Site Address #	West Linn OR 97068	Acres	0.04 Acres
Year Built		Assessed Total Value	\$2,752.00
Rec. Date	5/1/1998	Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	City Of West Linn		



# 65			
Parcel #	05001417	Tax Account	21E35AB01500
Site Address #	2512 Crestview Dr West Linn OR 97068	Acres	0.17 Acres
Year Built	2000	Assessed Total Value	\$395,889.00
Rec. Date	3/26/2014	Sale Price	
Bedrooms	5	Bathrooms	2.50
Total Rooms		Sq Ft	2,747 SqFt
Owner	Schaffer, Karin L		



# 66			
Parcel #	05001418	Tax Account	21E35AB01600
Site Address #	2500 Crestview Dr West Linn OR 97068	Acres	0.20 Acres
Year Built	2001	Assessed Total Value	\$406,641.00
Rec. Date	10/5/2001	Sale Price	\$340,353.00
Bedrooms	5	Bathrooms	2.50
Total Rooms		Sq Ft	2,722 SqFt
Owner	Pakula, Jennifer L		

# 67			
Parcel #	05002551	Tax Account	21E35B 00493
Site Address #	West Linn OR 97068	Acres	0.06 Acres
Year Built		Assessed Total Value	\$341.00
Rec. Date	7/9/2018	Sale Price	\$1,300,000.00
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	Main Source Management LLC		



# 68			
Parcel #	05007663	Tax Account	21E35AB04400
Site Address #	2471 Crestview Dr West Linn OR 97068	Acres	0.18 Acres
Year Built	2004	Assessed Total Value	\$655,490.00
Rec. Date	12/15/2017	Sale Price	\$785,000.00
Bedrooms	6	Bathrooms	4.50
Total Rooms		Sq Ft	4,447 SqFt
Owner	Fry, Christopher M		



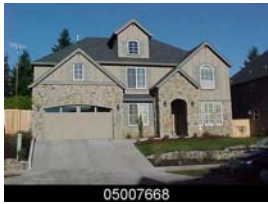
# 69			
Parcel #	05007664	Tax Account	21E35AB04500
Site Address #	2483 Crestview Dr West Linn OR 97068	Acres	0.18 Acres
Year Built	2004	Assessed Total Value	\$635,504.00
Rec. Date	7/6/2015	Sale Price	\$685,000.00
Bedrooms	6	Bathrooms	4.00
Total Rooms		Sq Ft	4,244 SqFt
Owner	Betty, James C III		



# 70			
Parcel #	05007666	Tax Account	21E35AB04700
Site Address #	2498 Crestview Dr West Linn OR 97068	Acres	0.23 Acres
Year Built	2004	Assessed Total Value	\$574,337.00
Rec. Date	7/6/2009	Sale Price	\$583,000.00
Bedrooms	4	Bathrooms	2.50
Total Rooms		Sq Ft	3,227 SqFt
Owner	Conlin, Robert S		



# 71			
Parcel #	05007667	Tax Account	21E35AB04800
Site Address #	2486 Crestview Dr West Linn OR 97068	Acres	0.26 Acres
Year Built	2004	Assessed Total Value	\$565,648.00
Rec. Date	6/1/2004	Sale Price	\$572,949.00
Bedrooms	5	Bathrooms	2.50
Total Rooms		Sq Ft	3,426 SqFt
Owner	Parker, Charles H		



72

Parcel #	05007668	Tax Account	21E35AB04900
Site Address #	2474 Crestview Dr West Linn OR 97068	Acres	0.26 Acres
Year Built	2004	Assessed Total Value	\$551,517.00
Rec. Date	8/12/2009	Sale Price	\$610,000.00
Bedrooms	5	Bathrooms	2.50
Total Rooms		Sq Ft	3,425 SqFt
Owner	Briggs, C C		

73

Parcel #	05025447	Tax Account	21E35BA20400
Site Address #	23103 Bland Cir West Linn OR 97068	Acres	0.23 Acres
Year Built	2014	Assessed Total Value	\$438,710.00
Rec. Date	1/28/2015	Sale Price	\$465,000.00
Bedrooms	5	Bathrooms	2.50
Total Rooms		Sq Ft	2,634 SqFt
Owner	Klopfenstein Kurt Von Trustee		

74

Parcel #	05026280	Tax Account	21E35AB05300
Site Address #	2944 Sunbreak Ln West Linn OR 97068	Acres	0.18 Acres
Year Built	2016	Assessed Total Value	\$570,224.00
Rec. Date	4/20/2017	Sale Price	\$795,000.00
Bedrooms	3	Bathrooms	2.50
Total Rooms		Sq Ft	4,048 SqFt
Owner	Shiferaw, Kuliti		

75

Parcel #	05026281	Tax Account	21E35AB05400
Site Address #	2956 Sunbreak Ln West Linn OR 97068	Acres	0.16 Acres
Year Built	2016	Assessed Total Value	\$442,281.00
Rec. Date	4/21/2017	Sale Price	\$784,000.00
Bedrooms	3	Bathrooms	2.50
Total Rooms		Sq Ft	3,424 SqFt
Owner	Walter, Susan R		

76

Parcel #	05026283	Tax Account	21E35AB05600
Site Address #	2469 Crestview Dr West Linn OR 97068	Acres	0.16 Acres
Year Built	2015	Assessed Total Value	\$712,830.00
Rec. Date	4/5/2018	Sale Price	\$1,030,000.00
Bedrooms	5	Bathrooms	4.50
Total Rooms		Sq Ft	4,607 SqFt
Owner	Leonard, Michael J		

# 77			
Parcel #	05026284	Tax Account	21E35AB05700
Site Address #	2455 Crestview Dr West Linn OR 97068	Acres	0.17 Acres
Year Built	2014	Assessed Total Value	\$624,067.00
Rec. Date	6/1/2017	Sale Price	\$920,100.00
Bedrooms	5	Bathrooms	3.50
Total Rooms		Sq Ft	4,120 SqFt
Owner	Willis Roc W Trustee		

# 78			
Parcel #	05026285	Tax Account	21E35AB05800
Site Address #	2443 Crest View Dr West Linn OR 97068	Acres	0.20 Acres
Year Built	2016	Assessed Total Value	\$617,391.00
Rec. Date	12/5/2016	Sale Price	\$850,000.00
Bedrooms	5	Bathrooms	3.50
Total Rooms		Sq Ft	4,078 SqFt
Owner	Su, Mei		

# 79			
Parcel #	05026286	Tax Account	21E35AB05900
Site Address #	2442 Crest View Dr West Linn OR 97068	Acres	0.22 Acres
Year Built	2015	Assessed Total Value	\$543,683.00
Rec. Date	4/2/2018	Sale Price	\$764,900.00
Bedrooms	3	Bathrooms	2.50
Total Rooms		Sq Ft	3,140 SqFt
Owner	Warren, Parker & Meredith		

# 80			
Parcel #	05026287	Tax Account	21E35AB06000
Site Address #	2454 Crest View Dr West Linn OR 97068	Acres	0.21 Acres
Year Built	2015	Assessed Total Value	\$559,268.00
Rec. Date	2/3/2016	Sale Price	\$782,710.00
Bedrooms	4	Bathrooms	2.50
Total Rooms		Sq Ft	3,417 SqFt
Owner	Reiland, Jessica A		

# 81			
Parcel #	05026288	Tax Account	21E35AB06100
Site Address #	2466 Crest View Dr West Linn OR 97068	Acres	0.30 Acres
Year Built	2015	Assessed Total Value	\$558,911.00
Rec. Date	6/3/2016	Sale Price	
Bedrooms	4	Bathrooms	2.50
Total Rooms		Sq Ft	3,394 SqFt
Owner	Klinck, Allan Crone		

# 82			
Parcel #	05029759	Tax Account	21E35BA20501
Site Address #	2100 Satter St West Linn OR 97068	Acres	0.18 Acres
Year Built	2016	Assessed Total Value	\$585,401.00
Rec. Date	2/1/2016	Sale Price	
Bedrooms	5	Bathrooms	3.50
Total Rooms		Sq Ft	4,694 SqFt
Owner	Lorenz, William C		

# 83			
Parcel #	05029760	Tax Account	21E35BA20502
Site Address #	2148 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$174,942.00
Rec. Date	9/18/2017	Sale Price	\$699,995.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,716 SqFt
Owner	Floyd, Daniel		

# 84			
Parcel #	05029761	Tax Account	21E35BA20503
Site Address #	2162 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$174,942.00
Rec. Date	7/7/2017	Sale Price	\$731,380.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,716 SqFt
Owner	Robinson, Bryan		

# 85			
Parcel #	05029762	Tax Account	21E35BA20504
Site Address #	2179 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$187,880.00
Rec. Date	8/18/2017	Sale Price	\$689,995.00
Bedrooms	6	Bathrooms	4.00
Total Rooms		Sq Ft	3,290 SqFt
Owner	Craver, Matthew R		

# 86			
Parcel #	05029763	Tax Account	21E35BA20505
Site Address #	2167 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built	2016	Assessed Total Value	\$432,784.00
Rec. Date	6/16/2017	Sale Price	\$789,900.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,143 SqFt
Owner	Gardner, James		

# 87			
Parcel #	05029764	Tax Account	21E35BA20506
Site Address #	2155 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built	2016	Assessed Total Value	\$543,753.00
Rec. Date	9/19/2017	Sale Price	\$726,000.00
Bedrooms	5	Bathrooms	3.50
Total Rooms		Sq Ft	3,396 SqFt
Owner	Grant, Cory Marog		

# 88			
Parcel #	05029765	Tax Account	21E35BA20507
Site Address #	2149 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$187,880.00
Rec. Date	8/17/2017	Sale Price	\$696,495.00
Bedrooms	6	Bathrooms	4.00
Total Rooms		Sq Ft	3,254 SqFt
Owner	Young, Jared M		

# 89			
Parcel #	05029766	Tax Account	21E35BA20508
Site Address #	2137 Satter St West Linn OR 97068	Acres	0.17 Acres
Year Built	2016	Assessed Total Value	\$344,975.00
Rec. Date	2/15/2018	Sale Price	\$712,000.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,305 SqFt
Owner	Schleef, Daniel J & Tara L		

# 90			
Parcel #	05029767	Tax Account	21E35BA20509
Site Address #	2113 Satter St West Linn OR 97068	Acres	0.29 Acres
Year Built	2016	Assessed Total Value	\$517,519.00
Rec. Date	12/2/2016	Sale Price	\$794,900.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,224 SqFt
Owner	Oliveros, Milette Balbin		

# 91			
Parcel #	05029768	Tax Account	21E35BA20510
Site Address #	2125 Satter St West Linn OR 97068	Acres	0.17 Acres
Year Built	2016	Assessed Total Value	\$468,011.00
Rec. Date	7/16/2015	Sale Price	\$259,000.00
Bedrooms	3	Bathrooms	3.50
Total Rooms		Sq Ft	2,923 SqFt
Owner	Fogle, David M		

# 92			
Parcel #	05029769	Tax Account	21E35BA20511
Site Address #	2101 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built	2015	Assessed Total Value	\$480,733.00
Rec. Date	8/19/2016	Sale Price	\$689,900.00
Bedrooms	4	Bathrooms	3.00
Total Rooms		Sq Ft	2,907 SqFt
Owner	Keller, Douglas		

# 93			
Parcel #	05029770	Tax Account	21E35BA20512
Site Address #	2145 Fircrest Dr West Linn OR 97068	Acres	0.13 Acres
Year Built		Assessed Total Value	\$22,582.00
Rec. Date	6/30/2015	Sale Price	
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	
Owner	City Of West Linn		

# 94			
Parcel #	05031187	Tax Account	21E35AB06300
Site Address #	2010 De Vries Way West Linn OR 97068	Acres	0.17 Acres
Year Built		Assessed Total Value	\$162,478.00
Rec. Date	3/28/2018	Sale Price	\$629,995.00
Bedrooms	6	Bathrooms	4.00
Total Rooms		Sq Ft	3,017 SqFt
Owner	Horvath, Thomas P & Patricia A		

# 95			
Parcel #	05031188	Tax Account	21E35AB06400
Site Address #	2022 De Vries Way West Linn OR 97068	Acres	0.17 Acres
Year Built		Assessed Total Value	\$158,699.00
Rec. Date	11/9/2017	Sale Price	\$619,995.00
Bedrooms	6	Bathrooms	4.00
Total Rooms		Sq Ft	2,979 SqFt
Owner	Snow, Jennie		

# 96			
Parcel #	05031189	Tax Account	21E35AB06500
Site Address #	2034 De Vries Way West Linn OR 97068	Acres	0.17 Acres
Year Built		Assessed Total Value	\$158,699.00
Rec. Date	9/29/2017	Sale Price	\$649,995.00
Bedrooms	5	Bathrooms	3.00
Total Rooms		Sq Ft	3,338 SqFt
Owner	Shah, Ankur		

# 97			
Parcel #	05031190	Tax Account	21E35AB06600
Site Address #	2462 Satter St West Linn OR 97068	Acres	0.18 Acres
Year Built		Assessed Total Value	\$162,478.00
Rec. Date	3/19/2018	Sale Price	\$650,000.00
Bedrooms	5	Bathrooms	3.00
Total Rooms		Sq Ft	3,338 SqFt
Owner	Thompson, Christopher		

# 98			
Parcel #	05031191	Tax Account	21E35AB06700
Site Address #	2450 Satter St West Linn OR 97068	Acres	0.19 Acres
Year Built		Assessed Total Value	\$166,257.00
Rec. Date	5/31/2018	Sale Price	\$649,995.00
Bedrooms	5	Bathrooms	3.00
Total Rooms		Sq Ft	3,338 SqFt
Owner	Blount, William L & Christy A		

# 99			
Parcel #	05031192	Tax Account	21E35AB06800
Site Address #	2467 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$158,699.00
Rec. Date	11/17/2017	Sale Price	\$729,995.00
Bedrooms	5	Bathrooms	3.50
Total Rooms		Sq Ft	3,962 SqFt
Owner	Kelly, Stephen D		

# 100			
Parcel #	05031193	Tax Account	21E35AB06900
Site Address #	2479 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$158,699.00
Rec. Date	12/27/2017	Sale Price	\$765,690.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,889 SqFt
Owner	Lockridge, Ashley E		

# 101			
Parcel #	05031194	Tax Account	21E35AB07000
Site Address #	2491 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$158,699.00
Rec. Date	2/27/2018	Sale Price	\$689,995.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,756 SqFt
Owner	Budden, Nicole E		

# 102			
Parcel #	05031195	Tax Account	21E35AB07100
Site Address #	2503 Satter St West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$158,699.00
Rec. Date	6/25/2018	Sale Price	\$640,000.00
Bedrooms	6	Bathrooms	4.00
Total Rooms		Sq Ft	3,097 SqFt
Owner	Ferrell, Jason & Ngim-Ung-Ferrell		

# 103			
Parcel #	05031196	Tax Account	21E35AB07200
Site Address #	2515 Satter St West Linn OR 97068	Acres	0.23 Acres
Year Built		Assessed Total Value	\$178,537.00
Rec. Date	5/24/2018	Sale Price	\$741,105.00
Bedrooms	5	Bathrooms	3.50
Total Rooms		Sq Ft	4,006 SqFt
Owner	Drochner, David R		

# 104			
Parcel #	05031197	Tax Account	21E35AB07300
Site Address #	2510 Satter St West Linn OR 97068	Acres	0.20 Acres
Year Built		Assessed Total Value	\$166,257.00
Rec. Date	6/26/2018	Sale Price	\$685,500.00
Bedrooms	5	Bathrooms	3.50
Total Rooms		Sq Ft	3,635 SqFt
Owner	Brodsky, David & Elena		

# 105			
Parcel #	05031198	Tax Account	21E35AB07400
Site Address #	2498 Satter St West Linn OR 97068	Acres	0.17 Acres
Year Built		Assessed Total Value	\$162,478.00
Rec. Date	5/10/2018	Sale Price	\$579,995.00
Bedrooms	4	Bathrooms	2.50
Total Rooms		Sq Ft	2,289 SqFt
Owner	McDonald, Dean R & Janet K		

# 106			
Parcel #	05031199	Tax Account	21E35AB07500
Site Address #	2049 De Vries Way West Linn OR 97068	Acres	0.17 Acres
Year Built		Assessed Total Value	\$158,699.00
Rec. Date	3/29/2018	Sale Price	\$659,995.00
Bedrooms		Bathrooms	
Total Rooms		Sq Ft	3,338 SqFt
Owner	Jia, Zhoudong		

107
Parcel # 05031200 **Tax Account** 21E35AB07600
Site Address # 2037 De Vries Way **Acres** 0.16 Acres
West Linn OR 97068
Year Built **Assessed Total Value** \$158,699.00
Rec. Date 4/30/2018 **Sale Price**
Bedrooms 4 **Bathrooms** 3.50
Total Rooms **Sq Ft** 3,619 SqFt
Owner Iervolino, Gennaro & Barbara

108
Parcel # 05031201 **Tax Account** 21E35AB07700
Site Address # 2025 De Vries Way **Acres** 0.16 Acres
West Linn OR 97068
Year Built **Assessed Total Value** \$174,443.00
Rec. Date 5/4/2018 **Sale Price** \$637,995.00
Bedrooms 6 **Bathrooms** 4.00
Total Rooms **Sq Ft** 3,017 SqFt
Owner Hoffen, Steven

109
Parcel # 05031202 **Tax Account** 21E35AB07800
Site Address # 2201 De Vries Ln **Acres** 0.21 Acres
West Linn OR 97068
Year Built **Assessed Total Value** \$174,443.00
Rec. Date 5/1/2018 **Sale Price** \$639,995.00
Bedrooms 5 **Bathrooms** 3.50
Total Rooms **Sq Ft** 3,148 SqFt
Owner Daniels, Erik D & Julie M

110
Parcel # 05031203 **Tax Account** 21E35AB07900
Site Address # 2213 De Vries Ln **Acres** 0.26 Acres
West Linn OR 97068
Year Built **Assessed Total Value** \$187,668.00
Rec. Date 3/30/2018 **Sale Price** \$719,995.00
Bedrooms 4 **Bathrooms** 3.50
Total Rooms **Sq Ft** 3,962 SqFt
Owner Wright, Joshua D & Linsey B

111
Parcel # 05031204 **Tax Account** 21E35AB08000
Site Address # 2225 De Vries Ln **Acres** 0.23 Acres
West Linn OR 97068
Year Built **Assessed Total Value** \$162,478.00
Rec. Date 11/30/2017 **Sale Price** \$778,140.00
Bedrooms 4 **Bathrooms** 3.50
Total Rooms **Sq Ft** 3,889 SqFt
Owner Harrison, Brian

# 112			
Parcel #	05031205	Tax Account	21E35AB08100
Site Address #	2237 De Vries Ln West Linn OR 97068	Acres	0.25 Acres
Year Built		Assessed Total Value	\$169,090.00
Rec. Date	5/22/2018	Sale Price	\$699,995.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,652 SqFt
Owner	Luo, Lin		

# 113			
Parcel #	05031206	Tax Account	21E35AB08200
Site Address #	22848 Weatherhill Rd West Linn OR 97068	Acres	0.18 Acres
Year Built		Assessed Total Value	\$162,478.00
Rec. Date	2/26/2018	Sale Price	
Bedrooms	6	Bathrooms	4.00
Total Rooms		Sq Ft	2,962 SqFt
Owner	Pearce, Matthew G & Nicoleta		

# 114			
Parcel #	05031207	Tax Account	21E35AB08300
Site Address #	22852 Weatherhill Rd West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$174,443.00
Rec. Date	8/30/2017	Sale Price	\$754,995.00
Bedrooms	5	Bathrooms	3.50
Total Rooms		Sq Ft	3,933 SqFt
Owner	Phillips, David A		

# 115			
Parcel #	05031208	Tax Account	21E35AB08400
Site Address #	22856 Weatherhill Rd West Linn OR 97068	Acres	0.16 Acres
Year Built		Assessed Total Value	\$174,443.00
Rec. Date	6/28/2018	Sale Price	\$774,100.00
Bedrooms	4	Bathrooms	3.50
Total Rooms		Sq Ft	3,849 SqFt
Owner	Mai, Yao		

Savanna Oaks Neighborhood Association Meeting

October 2, 2018

Last Name	First Name	SONA	Email (Optional)	Signature
Achcar	Henry	Y	link2sonny@aol.com	
Achcar	Susanne	Y	link2sonny@aol.com	
Andrich	Angela	Y		
Ahmed	Ahsan	Y	ahsahmed@gmail.com	
Bansal	Rishi	Y	bansal.rishi@gmail.com	
Belles	Eryn	Y	erynbelles@gmail.com	
Belles	RJ	Y	erynbelles@gmail.com	
Black	Bernard	Y	bernardkblack@yahoo.com	
Black	Brenda	Y		
Blankenmeister	Linda	Y	lblankenmeister17@gmail.com	<i>LB</i>
Blankenmeister	Paul	Y	pblankenmeister@gmail.com	
Blount	Christy	Y	christyblount5@gmail.com	<i>C Blount</i>
Blount	William	Y	billblount1000@gmail.com	<i>W Blount</i>
Briles	Micah	Y		
Briles	Jolynn	Y	jolynnjb@yahoo.com	
Buccino	Anthony	Y	buccinolaw@comcast.net	
Carini	Frank	Y	landf@alaskan.com	<i>Frank H Carini</i>
Carini	Lori	Y	lacnw15@comcast.net	<i>Lori Carini</i>
Carr	Beth	Y	carrba@comcast.net	
Cecil	Pete	Y	pjcecil@aol.com	
Chaplen	John	Y	quattrode@comcast.net	
Chappuis	Ken	Y	chappuiskg@gmail.com	
Dawson	Sheri	Y	macslou@gmail.com	
Dean	David	Y	dean3fish@aol.com	
Eustaquio	Darwin	Y	darwinustaquio@gmail.com	
Eustaquio	Jennifer	Y	jennifer.ann.eustaquio@gmail.com	
Feltman	Valerie	Y	valerie.feltman@yahoo.com	
Flad	Rian	Y	rianflad@gmail.com	
Frazier	Ann	Y	annfrazier41@comcast.net	
Frazier	Bill	Y	billcfrazier@comcast.net	
Gayle	Patricia	Y	u_namaste@yahoo.com	
Grage	Kenny	Y	kennygrage@gmail.com	
Grein	Tom	Y	mrsilicon@gmail.com	
Hardie	Ruth	Y	ruthieann6905@yahoo.com	<i>Ruth Hardie</i>
Hatch	Dana	Y	dana@danahatch.com	<i>Dana Hatch</i>
Hillier	Alan	Y	alanhillier@comcast.net	
Holden	Charles	Y	elkiehfuss@hotmail.com	
Holden	Elizabeth	Y	elkiehfuss@hotmail.com	
Horvath	Patty	Y	pattyhorvath@comcast.net	<i>Patty Horvath *</i>

Savanna Oaks Neighborhood Association Meeting

October 2, 2018

Last Name	First Name	SONA	Email (Optional)	Signature
Horvath	Tom	Y		
Iiams	Carl	Y	iiamsc@yahoo.com	
Kelly	Margot	Y	mkkelly70@aol.com	<i>Margot Kelly</i>
Kelly	Steve	Y	<i>SK365@aol.com</i>	
Kerridge	Laurie	Y	laurie@lauriekerridge.com	
Kleiner	Brian	Y		<i>Steve Kerridge</i>
Kolstad	Linda	Y	LindaCKolstad@aol.com	
Kolstad	Toby	Y	tkolstad@aol.com	
Laird	Dale	Y	ddlairdyb@gmail.com	
Leonard	Michael	Y	mleonard7@gmail.com	
Li	Ming	Y	Guoling.Zhang@hotmail.com	
Maestretti	Jim	Y	c.i.maestretti@gmail.com	
Maestretti	Jodi	Y		
Mathews	Bobbie	Y	robarmat@aol.com	
Mathews	Charles	Y	cwmiii@comcast.net	
Mattecheck	MaryAnn	Y	maematt51@gmail.com	<i>M. Mattecheck</i>
McGuire	Patrick	Y	patnorthwest@outlook.com	
McGuire	Gerry	Y		<i>Patrick McGuire</i>
McKinley	Evan	Y	mckinlee@wlhs.wlww.k12.or.us	
Misley	Mary Cay	Y	marycaymisley@gmail.com	
Nguyen	Shelly	Y	shelly_cook28@yahoo.com	
Perry	Brenda	Y	aperryb3@gmail.com	
Perry	Tony	Y	aperryb3@gmail.com	
Petersen	Richard	Y	rpeter50@yahoo.com	
Pickett	Ed	Y	eellp@comcast.net	
Pickett	Linda	Y		
Pryor	Ken	Y	paraqon399@yahoo.com	
Pryor	Sherry	Y	peacefulheart@msn.com	
Reiland	Paul	Y		
Remington	Tad	Y	tadwr@hotmail.com	
Rushton	Stephen	Y	snmirush@gmail.com	
Rushton	Pat	Y	pjrsrush@comcast.net	<i>Stephen H. Rushton</i>
Rutten	Michael	Y	michaelrutten@comcast.net	
Sakelik	Richard	Y	pacaguy@mac.com	<i>Michael Rutten</i>
Sakelik	Marge	Y		
Schultz	Vicki	Y	vckyschultz@yahoo.com	
Schwarz	Ed	Y	ed.schwarz@gmail.com	<i>Ed Schwarz</i>
Schwarz	Roberta	Y	roberta.schwarz@comcast.net	
Selby	Carmela	Y	carmelaleone@live.com	
<i>SCHULTZ</i>	<i>ROBERT</i>	Y	<i>DUKE.PDA@GMAIL.COM (20870 Westhick 4)</i>	<i>Roberta Schwarz</i>

Savanna Oaks Neighborhood Association Meeting

October 2, 2018

Last Name	First Name	SONA	Email (Optional)	Signature
Sheridan	Bill	Y	sheridanbn@msn.com	
Sheridan	Nancy	Y		
Shettler	Chris	Y	thump727@gmail.com	
Shettler	Kim	Y	kshettler39@gmail.com	
Shortall	Mary	Y	shortallme@gmail.com	
Sloop	David	Y	drudave@comcast.net	
Sloop	Dru	Y	drudave@comcast.net	
Solheim	Dorothy	Y		
Solheim	Allen	Y	allensolheim@hotmail.com	
Udell	Jon	Y	barbara.udell@pobox.com	
Vanderpool	Tamara	Y	tamvan@msn.com	
Van Hoon	Maria	Y	lobaronessa@yahoo.com	
von Kloptenstein	Kurt	Y	orca.campy@gmail.com	
Warren	Meredith	Y	pandmwarren@gmail.com	
Wideman	Stephen	Y	sp8wideman@gmail.com	
Winsper	Paul	Y		
Zhang	Guoling	Y	Guoling.Zhang@hotmail.com	

Name	Member of Savanna Oaks N.A.	Guests	Email	Signature	SONA
Richard/Judy Hunter		X	Judysh2000@gmail	Judy Hunter	W W
Josh Wright			wrightjoshua@gmail.com		Yes*
Nicole Budden			happytrailsridingcenter@yahoo.com	Nicole Budden	Yes*
Brian Maher			bmaher789@gmail.com	B. Maher	W
* JJ Porrook			jporrook@gmail.com		Yes
Kathie Halicki		on site		K. Halicki	W
* Bill & Sarah Lorenz	Lorenzhomes@comcast.net		palisadehomes@comcast.net		Yes Yes
* JASON FERRELL			MARSHAL352@yahoo.com	J. Ferrell	NO Yes

Name	Email	Signature	SONA Y/N
(presenter) Steve Miller	Stevem@emeriodesign.com	Steve Miller	NO
* Joe Lockridge	LOCKRIDG@OITSU.EDU	[Signature]	Yes
SONA? YES * Michel Romanino	MICHEL.ROMANINO@GMAIL.COM	[Signature]	Yes
* Carl Snow	snowfire1413@gmail.com	[Signature]	Yes
Julia Simpson	julasimpson.pdx@gmail.com	Julia Simpson	N
(presenter) STEVE MILEHAM	SMILEHAM@LRSARCHITECTS.COM	[Signature]	N
RAMIYA RAMSUBRAMANIAN	RAMIYA@COMCAST.NET	R. Ramsubramanian	N
ERIC DANIELS	danielspdx@gmail.com	Eric Daniels	Yes
(presenter) Loe Lynn Powers	zpowers@radlerwhite.com	[Signature]	N
SONA? YES * Amber Craver	amberdoll55@gmail.com	Amber Craver	Yes
SONA? YES Diana Cubbage	dianacubbage@gmail.com	Diana Cubbage	N
SONA? YES Rod Friesen	Rod.Friesen@Frontier.com	[Signature]	N
* VICTORIA STEELE KELLER	victoriask@comcast.net	Victoria Steele Keller	Yes

31 SONA
 7 Willamette VA
 3 Guest presenter

 41

Willamette?
 Julia 5
 Kathie 6
 Richard + 1
 Judy 1

Final #s
 31 SONA mem!
 7 Willamette
 + 3 Presenters

 41



**PHASE I ENVIRONMENTAL SITE
ASSESSMENT REPORT**

Prepared For:

**BOB SCHAULTZ
22870 WEATHERHILL LLC
12810 SW MORNINGSTAR DRIVE
TIGARD, OREGON 97223**

AND

**ROD FRIESEN
12810 SW MORNINGSTAR DRIVE
TIGARD, OR 97223**

Property Identification:

**RESIDENTIAL DWELLING
22870 S WEATHERHILL RD
WEST LINN, OR 97068**

Prepared By:

**ALPHA ENVIRONMENTAL SERVICES, INC.
11080 SW ALLEN BLVD. SUITE 100
BEAVERTON, OREGON 97005
TEL (503) 292-5346 FAX (503) 203-1516
WWW.ALPHAENVIRONMENTAL.NET**

**Date Issued: Friday, August 3, 2018
Alpha Project Number: 18-22248**

TABLE OF CONTENTS

EXECUTIVE SUMMARY	5
1.0 INTRODUCTION	7
1.1 PURPOSE	7
1.2 SCOPE OF SERVICES	7
1.3 ASSUMPTIONS	8
1.4 LIMITATIONS AND EXCEPTIONS	8
1.4.1 <i>Data Gaps</i>	8
1.4.2 <i>Data Failure</i>	8
1.5 USER RESPONSIBILITIES	8
1.6 SPECIAL TERMS AND CONDITIONS	9
1.7 USE RELIANCE	9
2.0 SITE DESCRIPTION	10
2.1 USER PROVIDED INFORMATION	10
2.2 LOCATION AND LEGAL DESCRIPTION	10
2.3 PROPERTY AND VICINITY GENERAL CHARACTERISTICS	10
2.4 CURRENT USE OF THE PROPERTY	11
2.5 DESCRIPTION OF PROPERTY UTILITIES	11
2.6 CURRENT USE OF ADJOINING SITES	11
2.7 PHYSICAL SETTING	12
2.7.1 <i>Topography</i>	12
2.7.2 <i>Soils/Geology</i>	12
2.7.3 <i>Hydrology</i>	12
3.0 USER PROVIDED INFORMATION	14
3.1 TITLE RECORDS	14
3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS (AULs)	14
3.3 SPECIALIZED KNOWLEDGE	14
3.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION	14
3.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES	14
3.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION	14
3.7 REASON FOR PERFORMING PHASE I	14
3.8 OTHER	14
4.0 HISTORICAL USE INFORMATION	15
4.1 HISTORICAL INFORMATION USE SUMMARY	15
4.2 AERIAL PHOTOGRAPHS	15
4.3 FIRE INSURANCE MAPS	18
4.4 CITY DIRECTORIES	18
4.5 CHAIN OF TITLE	19
4.6 ADDITIONAL ENVIRONMENTAL RECORD SOURCES	19
5.0 RECORDS REVIEW	20
5.1 STANDARD ENVIRONMENTAL RECORD SOURCES	20
5.1.1 <i>Federal and State Regulatory Review</i>	20
5.2 LOCAL REGULATORY REVIEW	26
5.2.1 <i>Fire Officials</i>	26
5.2.2 <i>Building Department</i>	26
5.2.3 <i>Other Agencies</i>	26
5.3 REGULATORY AGENCY FILE AND RECORDS REVIEW	26
5.4 VAPOR ENCROACHMENT ASSESSMENT	27
6.0 SITE RECONNAISSANCE	28
6.1 METHODOLOGY AND LIMITING CONDITIONS	28

6.2	BUILDING AND GENERAL SITE CHARACTERISTICS	28
6.2.1	<i>Exterior Observations</i>	28
6.2.2	<i>Interior Observations</i>	28
6.2.3	<i>Solid Waste Disposal</i>	28
6.2.4	<i>Surface Water Drainage</i>	28
6.2.5	<i>Wells and Cisterns</i>	29
6.2.6	<i>Wastewater</i>	29
6.2.7	<i>Additional Site Observations</i>	29
6.3	POTENTIAL ENVIRONMENTAL CONDITIONS	29
6.3.1	<i>Hazardous Materials and Petroleum Products Used or Stored at the Site</i>	29
6.3.2	<i>Evidence of Releases</i>	29
6.3.3	<i>Polychlorinated Biphenyls (PCBs)</i>	29
6.3.4	<i>Landfills</i>	30
6.3.5	<i>Pits, Ponds, Lagoons, Sumps, and Catch Basins</i>	30
6.3.6	<i>Onsite ASTs and USTs</i>	30
6.3.7	<i>Radiological Hazards</i>	30
6.3.8	<i>Additional Hazard Observations</i>	30
7.0	INTERVIEWS	31
7.1	INTERVIEW WITH OWNER	31
7.2	INTERVIEW WITH SITE MANAGER	31
7.3	INTERVIEW WITH OCCUPANTS	31
7.4	INTERVIEW WITH LOCAL GOVERNMENT OFFICIALS.....	31
7.5	INTERVIEWS WITH OTHERS	31
8.0	EVALUATION	32
8.1	FINDINGS	32
8.1.1	<i>Data Gaps</i>	32
8.1.2	<i>Onsite Environmental Conditions</i>	32
8.1.3	<i>Offsite Environmental Conditions</i>	32
8.1.4	<i>Controlled Recognized Environmental Conditions (CRECs)</i>	32
8.1.5	<i>Historical Recognized Environmental Conditions (HRECs)</i>	32
8.1.6	<i>De Minimis Environmental Conditions</i>	33
8.2	OPINION	33
8.3	CONCLUSIONS	33
8.4	RECOMMENDATIONS.....	33
8.5	DEVIATIONS.....	33
8.6	SIGNATURES OF ENVIRONMENTAL PROFESSIONALS.....	33
8.6.1	<i>Qualification of Environmental Professionals</i>	33
8.6.2	<i>All Appropriate Inquiries Conformance</i>	34
9.0	NON-SCOPE CONSIDERATIONS	35
9.1	ASBESTOS-CONTAINING MATERIALS (ACM).....	35
9.2	LEAD-BASED PAINT	35
9.3	RADON	35
9.4	LEAD IN DRINKING WATER	35
10.0	REFERENCES	36
10.1	REPORTS, PLANS, AND OTHER DOCUMENTS REVIEWED:	36
10.2	AGENCIES CONTACTED:	36
11.0	LIST OF ACRONYMS	38

TABLE OF FIGURES

TABLE 1: SIGNIFICANT ELEMENTS OF INVESTIGATION	6
TABLE 2: USER PROVIDED INFORMATION	10
TABLE 3: SITE OCCUPANTS	11
TABLE 4: PROPERTY UTILITIES	11
TABLE 5: FEDERAL ENVIRONMENTAL LISTS	20
TABLE 6: STATE & TRIBAL ENVIRONMENTAL LISTS	21
TABLE 7: LOCAL & PROPRIETARY RECORDS	21

APPENDICES

APPENDIX A: SITE PHOTOGRAPHS

APPENDIX B: HISTORICAL RESEARCH DOCUMENTATION

EXHIBIT B-1: AERIAL PHOTOGRAPHS

EXHIBIT B-2: FIRE INSURANCE MAPS

EXHIBIT B-3: CITY DIRECTORIES

EXHIBIT B-4: TITLE SEARCH RECORDS

APPENDIX C: REGULATORY RECORDS DOCUMENTATION

EXHIBIT C-1: MAPPED DATABASE REPORT

EXHIBIT C-2: GENERAL PUBLIC RECORDS

APPENDIX D: CLIENT PROVIDED DOCUMENTATION

APPENDIX E: LABORATORY REPORTS

APPENDIX F: OTHER SUPPORTING DOCUMENTATION

APPENDIX G: QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

EXECUTIVE SUMMARY

Alpha Environmental Services, Inc. (Alpha) has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scope of work and limitations accepted by 22870 Weatherhill LLC for the Residential Dwelling located at 22870 S Weatherhill Rd, West Linn, OR 97068 (the Property).

The Phase I ESA is designed to provide 22870 Weatherhill LLC with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the Property. This assessment was conducted utilizing generally accepted ESA industry standards in accordance with the All Appropriate Inquiry (AAI) process, American Society for Testing and Materials (ASTM) E 1527-13, Standard Practice for Environmental Site Assessments: Phase I ESA Process, and Alpha's contracted scope of work for the Phase I ESA.

Property Overview

The Property consists of an irregular-shaped parcel approximately 2.56 acres in size. The Property is designed and used for residential purposes. Currently, the Property is developed with two structures – a dwelling and a shed building. The dwelling was constructed in 1986, according to county records. The site offers one tenant space for residential purposes.

Access to the Property is provided from S Weatherhill Road. Manicured landscaping surrounds the Property. No other structures or significant surface features were noted on the Property at the time of the reconnaissance.

The Property is flat and is at an approximate elevation of 597 feet above mean sea level. Based upon topographic map interpretation and site observations, the presumed groundwater flow beneath the site is inferred to be in a southwesterly direction.

Historic Property Usage

The Property was vacant land in 1936. According to Clackamas County records, a dwelling was constructed in 1986. Between 1981 and 1994, a shed was constructed on the Property. The Property has remained largely unchanged since this time.

Adjoining Sites

The Property is situated within an urban area in West Linn, Oregon. The Property is bound to the northwest, south and west by residential sites, to the northeast by an assisted care facility and to the east by vacant land. The surrounding area is composed mainly of residential sites with some commercial sites beyond.

Records Review

According to the regulatory database report from Environmental Data Resources, Inc. (EDR) and based on one or more of the following: distance from the Property, being located in a presumed downgradient/crossgradient groundwater direction relative to the Property, type of media impacted, and/or status reported by the regulatory agency, the offsite properties identified within the prescribed search radii represent a low environmental risk to the Property.

Based on the observations made and information obtained during the course of this assessment, no past or present use of the Property appears to represent a significant environmental concern.

Conclusions

Alpha performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 of the 22870 S Weatherhill Rd, West Linn, OR 97068. Any exceptions to or deletions from this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Property.

Recommendations

Based on the information available at the time of this assessment, Alpha does not recommend further investigation of the Property at this time.

Significant Elements of Investigation

The following table summarizes the significant elements of this investigation.

TABLE I: SIGNIFICANT ELEMENTS OF INVESTIGATION	Onsite	Offsite Adjoining
Issues Identified in Standard Environmental Record Sources	no	Yes
Fire Department underground storage tank (UST) permits	no	no
Aboveground storage tanks (ASTs) and USTs	no	no
Historic use of concern (drycleaners, auto repair facility, etc.)	no	no
Hazardous Materials and/or Petroleum Products	no	no
Unlabeled containers and/or drums	no	no
Evidence of Release (staining, etc.)	no	no
Polychlorinated Biphenyls (PCBs)	no	no
Landfills	no	no
Pits, ponds, lagoons, sumps, catch basins	no	no
Oil & Gas Wells	no	no
Radiological Hazards	no	no
Asbestos Containing Materials (ACM)	n/a	n/a
Radon	not tested	n/a
Lead-Based Paint	n/a	n/a
Other	n/a	n/a

n/a = not applicable

1.0 INTRODUCTION

Alpha Environmental Services, Inc. (Alpha) was retained by 22870 Weatherhill LLC to conduct a Phase I Environmental Site Assessment (ESA) of the Residential Dwelling located at 22870 S Weatherhill Rd, West Linn, OR 97068 (the Property). The protocol used for this assessment is in general conformance with the American Society for Testing and Materials (ASTM) Practice E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (American Society for Testing and Materials, 2013) and Alpha's scope of work for Phase I Environmental Site Assessments (ESAs).

On Wednesday, August 1, 2018, Casey Ward, a representative of Alpha, conducted a site reconnaissance to assess the possible presence of petroleum products and hazardous materials at the Property. Alpha's investigation included review of aerial photographs, reconnaissance of adjoining properties, background research, and review of available local, state, and federal regulatory records regarding the presence of petroleum products and/or hazardous materials at the Property and in the vicinity.

1.1 Purpose

The purpose of this Phase I ESA was to identify existing or potential recognized environmental conditions (RECs) as defined by ASTM E 1527-13 (American Society for Testing and Materials, 2013) as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment".

Alpha understands that the findings of this assessment will be used by 22870 Weatherhill LLC to evaluate a pending financial transaction in connection with the Property.

1.2 Scope of Services

The scope of work for this ESA is in accordance with 22870 Weatherhill LLC Phase I ESA protocol and is in general accordance with the requirements of ASTM Standard E 1527-13. Alpha warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the scope of work. These methodologies are described as representing good commercial and customary practice for conducting a Phase I ESA of a property for the purpose of identifying RECs.

Please be advised that pursuant to the All Appropriate Inquiries (AAI) rules (40 CFR 312.20) and in conformance with the ASTM E 1327-13 Standard (American Society for Testing and Materials, 2013), Section 4.6; this report and its statements are valid for 180 days after the date of issuance. After 180 days and before one year of the date of issuance, a report update may be performed; after one year, a new full Phase 1 ESA is required for the Property.

No other warranties are implied or expressed.

1.3 Assumptions

There is a possibility that even with the proper application of these methodologies there may exist on the Property conditions that could not be identified within the scope of the assessment or that were not reasonably identifiable from the available information. Alpha believes that the information obtained from the record review and the interviews concerning the Property is reliable. However, Alpha cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The methodologies of this assessment are not intended to produce all-inclusive or comprehensive results, but rather to provide 22870 Weatherhill LLC with information relating to the Property.

1.4 Limitations and Exceptions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E 1527-13. Specific limitations and exceptions to this ESA are set forth below:

1.4.1 Data Gaps

A data gap is defined in ASTM E 1527-13 as “a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.”

No significant data gaps were encountered during this Phase I ESA.

1.4.2 Data Failure

A data failure is defined in ASTM E 1527-13 as “a failure to achieve the historical research objectives . . . even after reviewing the standard historical sources . . . that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap.”

No significant data failures were encountered during this Phase I ESA.

1.5 User Responsibilities

As outlined in ASTM E 1527-13, it is the responsibility of 22870 Weatherhill LLC (the User) to provide the following pieces of information:

- Environmental clean-up liens and Activity Use Limitations (AULs): The User must search for environmental clean-up liens and AULs which include institutional controls (ICs) and engineering controls (ECs).
- Specialized knowledge: The User must consider specialized knowledge about the Property to identify conditions indicative of releases or threatened releases. The User should provide this information to Alpha prior to the site reconnaissance.
- Reasons for Significantly Lower Purchase Price: The User shall consider the relationship of purchase price to fair market value of Property. The User should inform Alpha if the User believes the purchase price of the Property is lower than fair market value due to contamination.

- Commonly Known or Reasonably Ascertainable Information: Commonly known or reasonably ascertainable information within the local community about the Property must be taken into account by the User. If the User is aware of any such information that is material to RECs in connection with the Property, the User should communicate such information to Alpha.

1.6 Special Terms and Conditions

The scope of work performed is governed by Alpha's proposal dated Friday, July 27, 2018 and authorized by 22870 Weatherhill LLC on Tuesday, July 31, 2018.

The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by 22870 Weatherhill LLC. No subsurface exploratory drilling or sampling was done under the scope of this work. Unless specifically stated otherwise in the report, no chemical analyses have been performed during the course of this Phase I ESA.

Some of the information provided in this report is based upon personal interviews and research of available documents, records, and maps held by the appropriate government and private agencies. This is subject to the limitations of historical documentation, availability, and accuracy of pertinent records and the personal recollections of those persons contacted.

1.7 Use Reliance

All reports, both verbal and written, are for the benefit of Rod Friesen and 22870 Weatherhill LLC. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of Alpha.

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, this report, and Alpha's *General Terms and Conditions for Professional Services Agreement*.

Continued viability of this report is subject to Section 4.6 of ASTM E 1527-13. If the ESA will be used by a different User other than the original User for whom the ESA was prepared, the third party must also satisfy the User's responsibilities in Section 4 and Section 6 of ASTM E 1527-13.

2.0 SITE DESCRIPTION

2.1 User Provided Information

Pursuant to ASTM E 1527-13, Alpha requested the following site information from 22870 Weatherhill LLC (User of this report) and from the site contact.

TABLE 2: USER PROVIDED INFORMATION	PROVIDED BY USER	NOT PROVIDED BY USER	DISCUSSED BELOW	DOES NOT APPLY
2.1.1 Environmental Pre-Survey Questionnaire		X		
2.1.2 Title Records		X		
2.1.3 Environmental Liens or Activity and Use Limitation		X		
2.1.4 Specialized Knowledge		X		
2.1.5 Valuation Reduction for Environmental Issues				X
2.1.6 Identification of Key Site Manager		X		
2.1.7 Reason for Performing Phase I ESA	YES, SEE SECTION 1.1			
2.1.8 Prior Environmental Reports		X		

2.2 Location and Legal Description

The address of the Property is 22870 S Weatherhill Rd, West Linn, OR 97068. The Property is located in a residential area of Clackamas County. According to the tax assessor, the assessor's parcel number of the Property is 00405449 and the Property has been owned by David and Diana Dean since 1991.

2.3 Property and Vicinity General Characteristics

The Property consists of an irregular-shaped parcel approximately 2.56 acres in size. The Property is designed and used for residential purposes. Currently, the Property is developed with two structures – a dwelling and a shed building. The dwelling was constructed in 1986, according to county records. The site offers one tenant space for residential purposes.

Access to the Property is provided from S Weatherhill Road. Manicured landscaping surrounds the Property. No other structures or significant surface features were noted on the Property at the time of the reconnaissance.

2.4 Current Use of the Property

Based on the information reviewed during the preparation of this report and the observations made during the reconnaissance of the Property, the tenant spaces are currently occupied by the tenants and activities identified in the table below:

TABLE 3: SITE OCCUPANTS		
Unit	Tenant	Operation
22870 S Weatherhill Road	Residential	Residential.

2.5 Description of Property Utilities

The following table includes utilities currently at the Property.

TABLE 4: PROPERTY UTILITIES	Provider/Source	Comments
Electric	Portland General Electric	
Gas	Northwest Natural Gas	
Water	Well	
Solid Waste Disposal	West Linn Refuse and Recycling	
Sewer	Septic	
Storm Water	None	
Heat	Natural Gas	
Hot Water	Unknown	
Cooling	Electric	

2.6 Current Use of Adjoining Sites

Adjoining sites are those that share a common property line with the Property, or would share a property line if they were not separated by an easement or public thoroughfare. During the vicinity reconnaissance, Alpha observed the following land use on sites adjoining the Property:

North: Residential to the northwest and assisted living facility to the northeast.

South: Residential sites.

East: Vacant land.

West: Residential sites.

2.7 Physical Setting

2.7.1 Topography

The United States Geological Survey (USGS), Canby, Quadrangle 7.5-minute series topographic map (United State Geological Service, 1985) was reviewed for this ESA. According to the contour lines on the topographic map, the Property is located at approximately 597 above mean sea level (MSL). The contour lines in the area of the Property indicate the area is sloping moderately to the southwest.

2.7.2 Soils/Geology

Based on the soil survey maps published by the United States Department of Agriculture (USDA) Soil Conservation Service (United States Department of Agriculture, 1977), the Property is mapped as Saum silt loam, which is characterized with moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

The Property is situated within the Willamette Valley, which is a portion of the Puget Trough physiographic sub province of the Pacific Mountain System geological province of the State of Oregon. This area consists of fluviolacustrine sedimentary deposits. Underlying the area is unconsolidated silt, sand, gravel and clay. Generally, this specific area consists of fine grained material, but gravel layers may also be found there to some extent. The thickness of these deposits is generally less than 100 feet; locally, it may be as great as 150 feet (Walker, et al., 1991).

2.7.3 Hydrology

According to the Well Log online database (Oregon Water Resources Department) and data from the USGS Estimated Depth to Groundwater Interactive Map (United States Geological Service), static groundwater is located approximately 276 feet below surface grade (bsg).

The flow of groundwater typically imitates the surface topography and ordinarily flows from higher to lower elevations. The near surface flow may be influenced by stratigraphy, water bodies, rainfall, underground utilities and other subsurface features. Based on the general topography of the Property and vicinity, groundwater is anticipated to flow to the southwest.

The nearest surface water in the vicinity of the Property is Tanner Creek, which lies approximately ½ mile to the east of the Property. According to Bob Scaultz, who provided site access for the site visit, water drainage from off-site runs across the southern portion of the Property through a drainage bed. Mr. Scaultz stated this was surface water runoff from nearby sites which runs through the Property, 15 feet north of the southern property line. This does not appear to present a significant environmental concern to the Property. No other on-site water wells, springs, settling ponds, lagoons, surface impoundments or wetlands were observed during the Property reconnaissance.

According to the U.S. Environmental Protection Agency Office of Water, the Property does not overlie a sole source aquifer.

3.0 USER PROVIDED INFORMATION

3.1 Title Records

The User did not provide Alpha with copies of recorded land title records for the Property.

3.2 Environmental Liens or Activity and Use Limitations (AULs)

It is the User's responsibility to search title records for environmental clean-up liens and Activity and Use Limitations (AULs) that are filed or recorded against the Property. These include both legal (institutional) controls and physical (engineering) controls filed in the land title office.

According to the user of this report, no environmentally related liens or Activity Use Limitations (AULs) have been recorded against the Property.

3.3 Specialized Knowledge

No significant specialized knowledge was provided by the User for this assessment.

3.4 Commonly Known or Reasonably Ascertainable Information

Alpha inquired of the User regarding ascertainable information regarding environmental conditions associated with the property. Knowledge of commonly known or reasonably ascertainable information related to environmental conditions was not reported by the User.

3.5 Valuation Reduction for Environmental Issues

No environmental issues were encountered during this review that would be likely to cause a valuation reduction. No valuation reduction was reported by the User.

3.6 Owner, Property Manager, and Occupant Information

No information was obtained that is relevant here.

3.7 Reason for Performing Phase I

Alpha understands that the findings of this study will be used by User to evaluate a pending financial transaction in connection with the Property.

This report may additionally be utilized by the User to qualify for Landowner Liability Protections (LLPs) under the "Brownfield Amendments" to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

3.8 Other

No other relevant User provided information was used for this review.

4.0 HISTORICAL USE INFORMATION

4.1 Historical Information Use Summary

The Property was vacant land in 1936. According to Clackamas County records, a dwelling was constructed in 1986. Between 1981 and 1994, a shed was constructed on the Property. The Property has remained largely unchanged since this time.

4.2 Aerial Photographs

Available aerial photographs dated 1936, 1948, 1952, 1955, 1960, 1970, 1975, 1981, 1994, 2000, 2006, 2009, 2012 and 2016 from EDR were reviewed for this ESA. Copies of selected photographs are included in [Appendix B, Exhibit B-1](#) of this report. The photographs are discussed below:

Date: 1936

	Description
Property	The Property appears to be vacant land.
North	The sites to the north appears to be a field possibly occupied by an orchard. A dwelling occupied the site to the northeast.
South	The sites to the south appear to be vacant land.
East	The site to the east appears to be vacant land.
West	The sites to the west appear to be vacant land.

Date: 1948

	Description
Property	No significant change from 1936 photo.
North	No significant change from 1936 photo.
South	An orchard appears to occupy a portion of the sites to the south.
East	No significant change from 1936 photo.
West	No significant change from 1936 photo.

Date: 1952

	Description
Property	No significant change from 1948 photo.
North	No significant change from 1948 photo.
South	No significant change from 1948 photo.
East	No significant change from 1948 photo.
West	No significant change from 1948 photo.

Date: 1955

	Description
Property	No significant change from 1952 photo.
North	No significant change from 1952 photo.
South	No significant change from 1952 photo.
East	No significant change from 1952 photo.
West	No significant change from 1952 photo.

Date: 1960

	Description
Property	No significant change from 1955 photo.
North	No significant change from 1955 photo.
South	No significant change from 1955 photo.
East	No significant change from 1955 photo.
West	No significant change from 1955 photo.

Date: 1970

	Description
Property	No significant change from 1960 photo.
North	The orchard to the north has been removed. The site to the northwest appears to be vacant land and the site to the northeast is occupied by three buildings appearing to be residential in nature.
South	No significant change from 1960 photo.
East	No significant change from 1960 photo.
West	No significant change from 1960 photo.

Date: 1975

	Description
Property	No significant change from 1970 photo.
North	No significant change from 1970 photo.
South	No significant change from 1970 photo.
East	No significant change from 1970 photo.
West	No significant change from 1970 photo.

Date: 1981

	Description
Property	No significant change from 1975 photo.

	Description
North	No significant change from 1975 photo.
South	No significant change from 1975 photo.
East	No significant change from 1975 photo.
West	No significant change from 1975 photo.

Date: 1994

	Description
Property	A dwelling and shed building have been constructed on the Property.
North	A dwelling has been constructed to the northwest.
South	No significant change from 1981 photo.
East	A building has been constructed to the east, possibly a barn.
West	A building was constructed to the west appearing to be a dwelling.

Date: 2000

	Description
Property	No significant change from 1994 photo.
North	The three buildings to the northeast have been removed and a larger commercial building has been constructed, consistent with the assisted care facility which currently occupies the site.
South	No significant change from 1994 photo.
East	No significant change from 1994 photo.
West	No significant change from 1994 photo.

Date: 2006

	Description
Property	No significant change from 2000 photo.
North	No significant change from 2000 photo.
South	Four dwellings have been constructed to the south.
East	No significant change from 2000 photo.
West	No significant change from 2000 photo.

Date: 2009

	Description
Property	No significant change from 2006 photo.
North	No significant change from 2006 photo.
South	No significant change from 2006 photo.

	Description
East	No significant change from 2006 photo.
West	No significant change from 2006 photo.

Date: 2012

	Description
Property	No significant change from 2009 photo.
North	No significant change from 2009 photo.
South	No significant change from 2009 photo.
East	No significant change from 2009 photo.
West	No significant change from 2009 photo.

Date: 2016

	Description
Property	No significant change from 2012 photo.
North	No significant change from 2012 photo.
South	No significant change from 2012 photo.
East	No significant change from 2012 photo.
West	The dwelling to the west has been razed and a development appears to be under construction.

4.3 Fire Insurance Maps

Due to the location of the Property falling outside of the historical city limits, Sanborn Fire Insurance maps were not available for the area.

4.4 City Directories

Historical City directories published by Polk and Cole were provided by EDR and reviewed for past names and business that were listed for the Property and adjoining properties. Copies are included in [Exhibit B-3](#). The findings are presented in the following tables:

Property: 22870 S Weatherhill Road

Year	Listing
2005	Residential
2010	Residential
2014	Residential

North:

Year	Listing
2005	22915 S Weatherhill Rd - Residential
2010	22915 S Weatherhill Rd - Residential
2014	22915 S Weatherhill Rd - Residential

South: No Listings

East: No Address – No Listings

West: No Listings

4.5 Chain of Title

A 50-year chain-of-title was not requested for this study. Historical use of the Property was researched using other standard historical sources.

4.6 Additional Environmental Record Sources

No additional environmental record sources were accessed for this report.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

5.1.1 Federal and State Regulatory Review

Information from standard federal and state environmental record sources was provided through EDR (Environmental Data Resources, 2018). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. This integrated database also contains postal service data in order to enhance address matching. Records from one government source are compared to records from another to clarify any address ambiguities. The demographic and geographic information available provides assistance in identifying and managing risk. The accuracy of the geocoded locations is approximately ± 300 feet.

In some cases, location information supplied by the regulatory agencies is insufficient to allow the database companies to geocode facility locations. These facilities are listed under the unmappable section within the EDR report. A review of the unmappable facilities indicated that several of these facilities are within the ASTM minimum search distance from the Property. These facilities are discussed under the appropriate database heading below.

Regulatory information from the database sources regarding possible RECs, within the ASTM search criteria and minimum search distance from the Property, was reviewed. Specific facilities are discussed below if determined likely that a potential REC has resulted at the Property from the listed facilities. Please refer to Appendix C, Exhibit C-1 for a complete listing.

TABLE 5: FEDERAL ENVIRONMENTAL LISTS

<i>Federal Records</i>	AMSD*	Property	Adjoining	<1/8 mile	1/8 to 1/4 mile	1/4 to 1/2 mile	> 1/2 mile
Federal National Priority List (NPL)	1.0	0	0	0	0	0	0
Federal Delisted NPL List	0.5	0	0	0	0	0	
Federal CERCLIS List	0.5	0	0	0	0	0	
Federal CERCLIS NFRAP List	0.5	0	0	0	0	0	
Federal RCRA CORRACT List	1.0	0	0	0	0	0	0
Federal RCRA Non-CORRACT TSD List	0.5	0	0	0	0	0	
Federal RCRA Generators	Property & adjoining	0	0				

<i>Federal Records</i>	AMSD*	Property	Adjoining	<1/8 mile	1/8 to 1/4 mile	1/4 to 1/2 mile	> 1/2 mile
Federal IC/EC Registries	Property	0					
Federal ERNS Sites	Property	0					

TABLE 6: STATE & TRIBAL ENVIRONMENTAL LISTS

<i>State & Tribal Records</i>	AMSD*	Property	Adjoining	<1/8 mile	1/8 to 1/4 mile	1/4 to 1/2 mile	> 1/2 mile
State and Tribal Equivalent CERCLIS	0.5	0	0	0	0	0	
Solid Waste/Landfill Facility (SWF) List	0.5	0	0	0	0	0	
Leaking Underground Storage Tank (LUST)	0.5	0	1	0	0	3	
Underground Storage Tank (UST) List	Property & adjoining	0	0				
State and Tribal IC/EC Registries	Property	0					
Voluntary Cleanup Program (VCP) Sites	0.5	0	0	0	0	0	
Brownfields	0.5	0	0	0	0	0	

TABLE 7: LOCAL & PROPRIETARY RECORDS

<i>Local & Proprietary Records</i>	AMSD*	Property	Adjoining	<1/8 mile	1/8 to 1/4 mile	1/4 to 1/2 mile	> 1/2 mile
Local Lists of Landfill/Solid Waste Disposal Sites	0.5	0	0	0	0	0	
Local Lists of Hazardous Waste/Contaminated Sites	0.5	0	0	0	0	0	
Local Land Records	Property	0					
Records of Emergency Release Reports	Property	0					
Other Ascertainable Records	Property	0					

<i>Local & Proprietary Records</i>	AMSD*	Property	Adjoining	<1/8 mile	1/8 to 1/4 mile	1/4 to 1/2 mile	> 1/2 mile
EDR High Risk Historical Records	0.5	0	0	0	0	0	

*AMSD: Approximate Minimum Search Distance, in miles, pursuant to ASTM E 1527-13

Federal Listings

Federal NPL

The National Priorities List (NPL) is the Environmental Protection Agency (EPA) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program.

The Property is not listed as an NPL facility. No NPL sites are located within one mile of the Property.

Federal Delisted NPL

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 Code of Federal Regulations (CFR) 300.425(e), sites may be deleted where no further response is appropriate.

The Property is not listed as a Delisted NPL site. No Delisted NPL sites are located within one-half mile of the Property.

Federal CERCLIS List

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation of sites that the EPA has investigated or is currently investigating for a release, or threatened release, of hazardous substances.

The Property is not listed as a CERCLIS facility. No CERCLIS sites are listed within one-half mile of the Property.

Federal CERCLIS NFRAP Sites List

The CERCLIS No Further Remedial Action Planned (NFRAP) List is a compilation of sites that the EPA has investigated and has determined that the facility does not pose a threat to human health or the environment, under the CERCLA framework.

The Property is not listed as a CERCLIS NFRAP facility. No CERCLIS NFRAP facilities are listed within one-half mile of the Property.

Federal Resource Conservation and Recovery Act (RCRA) Corrective Action (CORRACT) Treatment, Storage and Disposal (TSD) Facilities List

The EPA Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Treatment, Storage and Disposal (TSD) database is a compilation by the EPA of reporting facilities that treat, store or dispose of hazardous waste. The Corrective Action (CORRACT) database is the EPA's list of treatment storage or disposal facilities subject to corrective action under RCRA.

The Property is not listed as a RCRA CORRACT TSD facility. No RCRA CORRACT TSD facilities are listed within one mile of the Property.

Federal Resource Conservation and Recovery Act (RCRA) Non-CORRACT TSD Facilities List

The RCRA TSD database is a compilation by the EPA of reporting facilities that treat, store or dispose of hazardous waste.

The Property is not listed as a RCRA Non-CORRACT TSD facility. No RCRA Non-CORRACT TSD sites are listed within one-half mile of the Property.

Federal RCRA Generator List

The RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste.

The Property is not listed as a RCRA Generator facility. No RCRA Generator facilities are listed on the adjoining sites.

Federal Institutional Control/Engineering Control (IC/EC) Registries

Any Federal institutional controls (IC) and/or engineering controls (EC) imposed on the Property would have been listed in one of the above-referenced registries.

Since the Property is not listed on any of the above-referenced registries, there is a low potential for Federal IC/EC controls to have been imposed on the Property.

Federal Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to collect information or reported release of oil or hazardous substances.

No ERNS sites were listed on the Property.

State Listings

State and Tribal CERCLIS-Equivalent List

The Oregon Department of Environmental Quality (DEQ) maintains a State and Tribal CERCLIS-equivalent lists that use the DEQ Confirmed Release List (CRL) and Environmental Cleanup Site Information (ECSI) database to compile a list of sites under investigation that could be actually or potentially contaminated and presenting a possible threat to human health and the environment.

The Property is not listed as a CRL facility. No CRL sites are listed within one-half mile of the Property.

The Property is not listed as an ECSI facility. No ECSI sites are listed within one-half mile of the Property.

Solid Waste/Landfill Facilities (SWF) List

A database of Solid Waste/Landfill Facilities (SWF) list is prepared by Oregon DEQ.

The Property is not listed as an SWF facility. No SWF facilities are listed within one-half mile of the Property.

State and Tribal Leaking Underground Storage Tank (LUST) List

The Oregon DEQ compiles a list of leaking underground storage tanks (LUSTs) of petroleum products and hazardous substances. The US EPA Region 10 maintains an inventory of Indian Land LUSTs currently under federal administration.

The Property is not listed as a LUST facility. Four LUST sites are listed within one-half mile of the Property. Three of these sites are located greater than 1/8 mile from the subject Property and due to the intervening distance, present a low environmental risk to the Property. The remaining site is discussed below:

- **HEATING OIL TANK, 22882 WEATHERHILL ROAD (LUST 03-99-0644).** This site is located adjacent the subject Property to the northwest in the presumed crossgradient groundwater flow direction. A leaking underground storage tank was discovered in 1999 during the tank decommissioning. Only soil contamination was reported and a soil matrix cleanup was performed. A closure letter was issued by the Oregon DEQ in 2013 and the file has been closed indicating cleanup efforts are complete. Due to the soil only reported contamination, soil matrix cleanup performed and DEQ issued closure letter, this site presents a low environmental risk to the Property.

State and Tribal Registered Underground Storage Tank (UST) List

The Oregon DEQ compiles a list of registered UST locations. The US EPA Region 10 maintains an inventory of Indian Land USTs currently under federal administration.

The Property is not listed as a registered UST facility. No registered UST facilities are listed for adjoining sites.

State and Tribal Institutional Controls/Engineering Controls (IC/EC) Registries

Any State or Tribal ICs and ECs imposed on the Property would have likely been listed in one of the above-referenced registries.

Since the Property is not listed on any of the above-referenced registries, there is a low potential for state or tribal IC/EC have been imposed on the Property.

State and Tribal Voluntary Cleanup Program (VCP) Sites

The Oregon DEQ maintains a list of responsible parties who have entered into an agreement with the DEQ to voluntarily address contamination associated with their property.

The Property is not listed as a VCP site. No VCP sites were listed within one-half mile of the Property.

Brownfields

The Oregon DEQ maintains a list of Brownfields sites as part of its Environmental Cleanup Site Information (ECSI) System.

The Property is not listed as a Brownfield site. No State or Tribal Brownfields sites were listed within one-half mile of the Property.

EDR Additional Environmental Records

Local Lists of Landfill/Solid Waste Disposal Sites

EDR reviews multiple data sources to determine if Landfill/Solid Waste Disposal Sites are located within one-half mile of the Property. No sites were listed in the database search.

Local Lists of Hazardous Waste/Contaminated Sites

EDR reviews multiple data sources to determine if Hazardous Waste/Contaminated Sites are located within prescribed search distances of the Property. No sites were listed in the database search.

Local Land Records

EDR reviews a Lien data source to determine if a lien against the Property exists. No record was listed in the database search.

Records of Emergency Release Reports

EDR reviews multiple data sources to determine if an Emergency Release has occurred on the Property. No record was listed in the database search.

Other Ascertainable Records

EDR reviews multiple data sources for Other Ascertainable Records of potential hazards in the vicinity of the Property. No sites were listed in the database search within the prescribed search distances.

EDR High Risk Historical Records

EDR maintains exclusive records for manufactured gas plants, historical gas stations and historical dry cleaners. No sites were listed within one-half mile of the Property.

5.2 Local Regulatory Review

5.2.1 Fire Officials

Records from the Tualatin Valley Fire and Rescue Fire Marshal were requested for evidence indicating the presence of underground storage tanks and for the use of hazardous materials. The Fire Marshal did not respond in time to be included in this report.

5.2.2 Building Department

Records from the City of West Linn, Building Department, were reviewed for evidence indicating the developmental history of the subject Property, and for the presence of documentation relative to underground storage tanks. No relevant records were found during this process.

Records from Clackamas County, Building Department, were requested for evidence indicating the developmental history of the subject Property, and for the presence of documentation relative to underground storage tanks. The Department did not respond in time to be included in this report.

5.2.3 Other Agencies

No other agencies were contacted for this review.

5.3 Regulatory Agency File and Records Review

In accordance with ASTM E1527-13, if the Property or any of the adjoining sites is identified on one or more of the standard environmental record sources listed above, pertinent regulatory files and/or records associated with the listings should be reviewed. The environmental professional may alternatively review files/records from an alternate source (onsite records, user provided records, records from local government agencies, interviews with regulatory officials or other knowledgeable individuals) regarding information about the environmental conditions that resulted in the standard environmental record source listing.

Based on the available online records from the DEQ, the reported closure status and cleanup efforts performed, it is the Alpha's opinion that an agency file review was not warranted for the adjacent site to the northwest.

5.4 Vapor Encroachment Assessment

A limited vapor encroachment assessment was conducted in general accordance with ASTM E 2600–10, Standard Guide for Vapor Encroachment Screening (VES) on Property Involved in Real Estate Transactions (ASTM International, 2013). The purpose of the Tier 1 screen was to collect information to determine if a vapor encroachment condition (VEC) exists at the subject Property. This assessment was based on information collected in conjunction with the Phase I ESA, including existing/planned use of the site, type of structures located on the site, surrounding property description, user information, historical and physical records review, regulatory database review, manmade or natural conduits, as applicable, and a visual noninvasive reconnaissance of the site and adjoining properties. The assessment did not include regulatory file reviews or subsurface investigations to evaluate soil, soil gas, or groundwater quality.

Alpha's review of the regulatory records identified a potential facility of concern within 100 feet of the site (22882 Weatherhill Rd), which is located crossgradient of the site. Documented impacts have not been identified on the site in association with this facility, and the potential for on-site vapor impacts originating from this facility appear low.

Based on the physical setting of the site, the current use of the site and the findings from the historical and regulatory records review, potential vapor encroachment issues were deemed not likely to exist at the Property at this time.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

The site reconnaissance was conducted by Casey Ward, of Alpha on Wednesday, August 1, 2018. The weather conditions at the time of the site reconnaissance were sunny and 76 degrees Fahrenheit. Mr. Bob Scaultz provided site access. The visual reconnaissance consisted of observing the boundaries of the property and systematically traversing the site to provide an overlapping field of view, wherever possible. The periphery of the on-site structures was observed. Permission to enter the interior of the dwelling was not granted. Photographs of pertinent site features identified during the site reconnaissance are included in [Appendix A](#).

6.2 Building and General Site Characteristics

The Property consists of an irregular-shaped parcel approximately 2.56 acres in size. The Property is designed and used for residential purposes. Currently, the Property is developed with two structures – a dwelling and a shed building. The dwelling was constructed in 1986, according to county records. The site offers one tenant space for residential purposes.

Access to the Property is provided from S Weatherhill Road. Manicured landscaping surrounds the Property. No other structures or significant surface features were noted on the Property at the time of the reconnaissance.

6.2.1 Exterior Observations

The exterior of the dwelling is constructed with composite shingle roofing and wooden siding. The dwelling is constructed with a concrete foundation.

6.2.2 Interior Observations

The interior of the dwelling was not entered as permission was not granted. Due to the developmental history of the Property and the current and former usage of the Property, this is not a significant data gap.

6.2.3 Solid Waste Disposal

Solid waste on the Property is collected in garbage cans and collected by West Linn Refuse and Recycling Inc. No indication of potentially hazardous material disposal was noted during Alpha's reconnaissance.

6.2.4 Surface Water Drainage

Surface water from the roof of the dwelling collects in downspouts which run underground, the outlet of which are unknown. The surface water from the remaining portion of the Property is naturally absorbed into the soil.

According to Bob Scaultz, water drainage from off-site runs across the southern portion of the Property through a drainage bed. Mr. Scaultz stated this was surface water runoff from nearby

sites which runs through the Property, 15 feet north of the southern property line. This does not appear to present a significant environmental concern to the Property.

6.2.5 Wells and Cisterns

No aboveground evidence of wells or cisterns was observed during the site reconnaissance.

6.2.6 Wastewater

No indications of industrial wastewater disposal or treatment facilities were observed during the onsite reconnaissance.

6.2.7 Additional Site Observations

No additional relevant general site characteristics were observed.

6.3 Potential Environmental Conditions

6.3.1 Hazardous Materials and Petroleum Products Used or Stored at the Site

No evidence of the use of hazardous materials or wastes was observed on the Property.

6.3.1.1 Unlabeled Containers and Drums

No unlabeled containers or drums were observed during the Site reconnaissance.

6.3.1.2 Disposal Locations of Regulated/ Hazardous Waste

No obvious indications of hazardous waste generation, storage or disposal were observed on the Property or were indicated during interviews.

6.3.2 Evidence of Releases

No obvious indications of hazardous material or petroleum product releases, such as stained or corroded areas or stressed vegetation, were observed during the site reconnaissance or reported during interviews.

6.3.3 Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain polychlorinated biphenyls (PCBs) at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by EPA regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified:

- Less than 50 parts per million (ppm) of PCBs – *“Non-PCB” transformer*
- 50-500 ppm – *“PCB-Contaminated” electrical equipment*
- Greater than 500 ppm – *“PCB” transformer*

Alpha observed one pole-mounted electrical transformer on the northwestern property line. The transformer was not labeled as to its PCB status. No leakage, staining or damage was

noted during the site visit and therefore, this transformer presents a low environmental risk to the Property. No other electrical equipment expected to contain PCBs was observed on the Property during Alpha's reconnaissance.

6.3.4 Landfills

No evidence of onsite landfilling was observed or reported during the site reconnaissance.

6.3.5 Pits, Ponds, Lagoons, Sumps, and Catch Basins

No evidence of onsite pits, ponds, or lagoons was observed or reported during the site reconnaissance. No evidence of sumps or catch basins, other than used for stormwater removal, was observed or reported during the site reconnaissance.

6.3.6 Onsite ASTs and USTs

No evidence of aboveground or underground storage tanks was observed during the site reconnaissance or reported during interviews.

6.3.7 Radiological Hazards

No radiological substances or equipment was observed or reported stored on the subject site.

6.3.8 Additional Hazard Observations

No additional hazards were observed on the Property.

7.0 INTERVIEWS

Interviews were conducted with the following individuals. Findings from these interviews are discussed in the following section of the report.

7.1 Interview with Owner

- No interview was conducted with the owner.

7.2 Interview with Site Manager

- No interview was conducted with the site manager.

7.3 Interview with Occupants

- No interviews were conducted with occupants.

7.4 Interview with Local Government Officials

- No interviews were conducted with local government officials.

7.5 Interviews with Others

- No other interviews were conducted.

8.0 EVALUATION

8.1 Findings

8.1.1 Data Gaps

No significant data gaps were encountered during this Phase I ESA. The following minor data gaps were encountered:

- The interior of the dwelling was not entered as permission was not granted. Due to the developmental history of the Property and the current and former usage of the Property, this is not a significant data gap.
- Historical information on the Property was not available dating back to 1940 in every 5-year increment. Due to the developmental history of the Property, this is not a significant data gap.
- Interview with the Property owner and site manager were not conducted due to the time constraints of the project to meet client's timeline. This is not a significant data gap due to the current and former use of the Property and the developmental history.

8.1.2 Onsite Environmental Conditions

No onsite recognized environmental conditions (RECs) were identified during the course of this assessment.

8.1.3 Offsite Environmental Conditions

The assessment identified no offsite recognized environmental conditions (RECs) that were considered likely to significantly impact the Property.

8.1.4 Controlled Recognized Environmental Conditions (CRECs)

A controlled recognized environmental condition (CREC) is an environmental condition resulting from a past release of any hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by the regulatory authority) with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (property use restrictions, activity and use limitations, institutional controls or engineering controls). A condition considered to be a CREC will be listed in the Conclusions Section of the report.

No CRECs were identified in connection with the Property during the course of this assessment.

8.1.5 Historical Recognized Environmental Conditions (HRECs)

A historical recognized environmental condition (HREC) is an environmental condition where a past release of any hazardous substances or petroleum products has occurred in

connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory agency, without subjection the property to any required controls (property use restrictions, activity and use limitations, institutional controls or engineering controls).

No HRECs were identified in connection with the Property during the course of this assessment.

8.1.6 De Minimis Environmental Conditions

De minimis environmental conditions are those that generally do not present a threat to human health or to the environment and that generally would not be subject of an enforcement action if brought to the attention of appropriate governmental agencies.

No de minimis environmental conditions were identified in connection with the Property during the course of this assessment.

8.2 Opinion

The following are Alpha's opinions regarding the Environmental Conditions detailed in the preceding Findings Section pursuant to the ASTM E 1527-13 Standard:

No Environmental Conditions were noted in the Findings Section above that would warrant an opinion in this section.

8.3 Conclusions

Alpha has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of 22870 S Weatherhill Rd, West Linn, OR 97068. Any exceptions to or deletions from this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of RECs in connection with the Property.

8.4 Recommendations

Based on the information available at the time of this assessment, Alpha does not recommend further investigation of the Property at this time.

8.5 Deviations

This Phase I ESA substantially complies with the scope of services and ASTM E 1527-13, as amended, except for exceptions and/or limiting conditions as discussed in Section 1.4.

8.6 Signatures of Environmental Professionals

8.6.1 Qualification of Environmental Professionals

I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in 3.12.10 of 40 CFR 312 and I have the specific

qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject Property.

8.6.2 All Appropriate Inquiries Conformance

I have developed and performed the all appropriate inquiries (AAI) in conformance with the standards and practices set forth in 40 CFR Part 312.



Rodolfo Gomez
Project Director

9.0 NON-SCOPE CONSIDERATIONS

Non-scope considerations are environmental issues or conditions at the Property that are outside the scope of ASTM E 1527-13 and are not required for AAI as defined by this practice. The non-scope considerations listed below are provided for interested parties who may wish to assess them in connection with the Property.

Whether or not a User elects to inquire into non-scope considerations in connection with this practice or any other environmental site assessment, assessment of such non-scope considerations is not required for All Appropriate Inquiry (AAI) as defined by this practice.

9.1 Asbestos-Containing Materials (ACM)

An asbestos evaluation was not required by the scope of services.

9.2 Lead-Based Paint

A lead-based paint survey was not included in the scope of work for this assessment.

9.3 Radon

The EPA has prepared a map to assist Federal, State, and local organizations to target their resources and to implement radon-resistant building codes (United States Environmental Protection Agency). The map divides the country into three radon zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA action limit of 4.0 picoCuries per Liter (pCi/L), Zone 2 with concentrations between 2.0 and 4.0 pCi/L and Zone 3 with concentrations below 2.0 pCi/L. It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give an indication of the propensity of radon gas accumulation in structures. Review of the EPA Map of Radon Zones places the Property in Zone 2, where average predicted radon levels are between 2.0 and 4.0 pCi/L.

9.4 Lead in Drinking Water

The Property is connected to the city water supply provided by the West Linn Water Bureau. According to the EPA website (United States Environmental Protection Agency), the drinking water supplied to the site complies with state and federal standards, including those for lead and copper. Water sampling was not conducted at the site to verify water quality.

10.0 REFERENCES

10.1 Reports, Plans, and Other Documents Reviewed:

American Society for Testing and Materials Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process [Report]. - [s.l.] : ASTM International, 2013. - E 1527-13.

ASTM International Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions [Report]. - West Conshohocken : ASTM International, 2013.

Environmental Data Resources Commercial Office Building: 5605 NE Elam Young Parkway Hillsboro, OR 97124 [Report]. - Shelton CT : [s.n.], 2018.

Oregon Water Resources Department Online Well Log Search and Groundwater level Data [Online]. - 2017. - <http://www.oregon.gov/OWRD/pages/index.aspx>.

United State Geological Service Canby, OR 7.5 minute series Topographic Map. - 1985.

United States Department of Agriculture Soil Survey Map for Portland, Oregon. - 1977.

United States Environmental Protection Agency EPA Map of Radon Zones [Online] // EPA United States Environmental Protection Agency. - 2017. - <http://www.epa.gov/radon/zonemap.html>.

United States Environmental Protection Agency Local Drinking Water Information [Online] // US EPA. - 2017. - <http://water.epa.gov/drink/local/index.cfm>.

United States Geological Service Estimated Depth to Ground Water and Configuration of the Water Table in the Portland, Oregon Area [Online] // USGS. - 2017. - <http://pubs.usgs.gov/sir/2008/5059/>.

Walker G. W. and MacLeod N. S. Geological Map of Oregon [Book]. - [s.l.] : United State Geological Survey, 1991.

10.2 Agencies Contacted:

City of West Linn

Building Department

Tualatin Valley Fire and Rescue Fire Marshal

County of Clackamas

Assessor's Office

State of Oregon



Department of Environmental Quality (DEQ)

11.0 LIST OF ACRONYMS

AAI	All Appropriate Inquiry
ACM	Asbestos Containing Material
AMSD	Approximate Minimum Search Distance
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
AUL	Activity and Use Limitation
bsg	below surface grade
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CFR	Code of Federal Regulations
CORRACT	RCRA Corrective Action
DEQ	Department of Environmental Quality (Oregon)
DOE	Department of Ecology (Washington)
ECSI	Environmental Site Cleanup Information (DEQ)
EDR	Environmental Data Resources, Inc.
EC	Engineering Control
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
HREC	Historical Recognized Environmental Conditions
IC	Institutional Control
LUST	Leaking Underground Storage Tank
MSL	mean sea level
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NLR	No Longer Regulated
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
OSHA	Occupational Safety and Health Administration
PACM	Presumed Asbestos Containing Material
PCB	Polychlorinated Biphenyls
pCi/L	picocuries per liter
ppb	parts per billion
ppm	parts per million

ACRONYMS (continued)

RBC	risk-based concentration
RBDM	risk-based decision making
RCRA	Resource Conservation & Recovery Act of 1976
RCRIS	Resource Conservation & Recovery Act Information System Sites
REC	Recognized Environmental Condition
SCL	State and Tribal CERCLIS Equivalent List
SPL	State Priorities List
SWL	Solid Waste Landfill
TSD	Treatment Storage and Disposal
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank
VCP	Voluntary Cleanup Program
VEC	Vapor Encroachment Condition
VES	Vapor Encroachment Screening
WRD	Oregon Water Resources Department

NOTE: Some acronyms may not be found in this report.

FIGURES

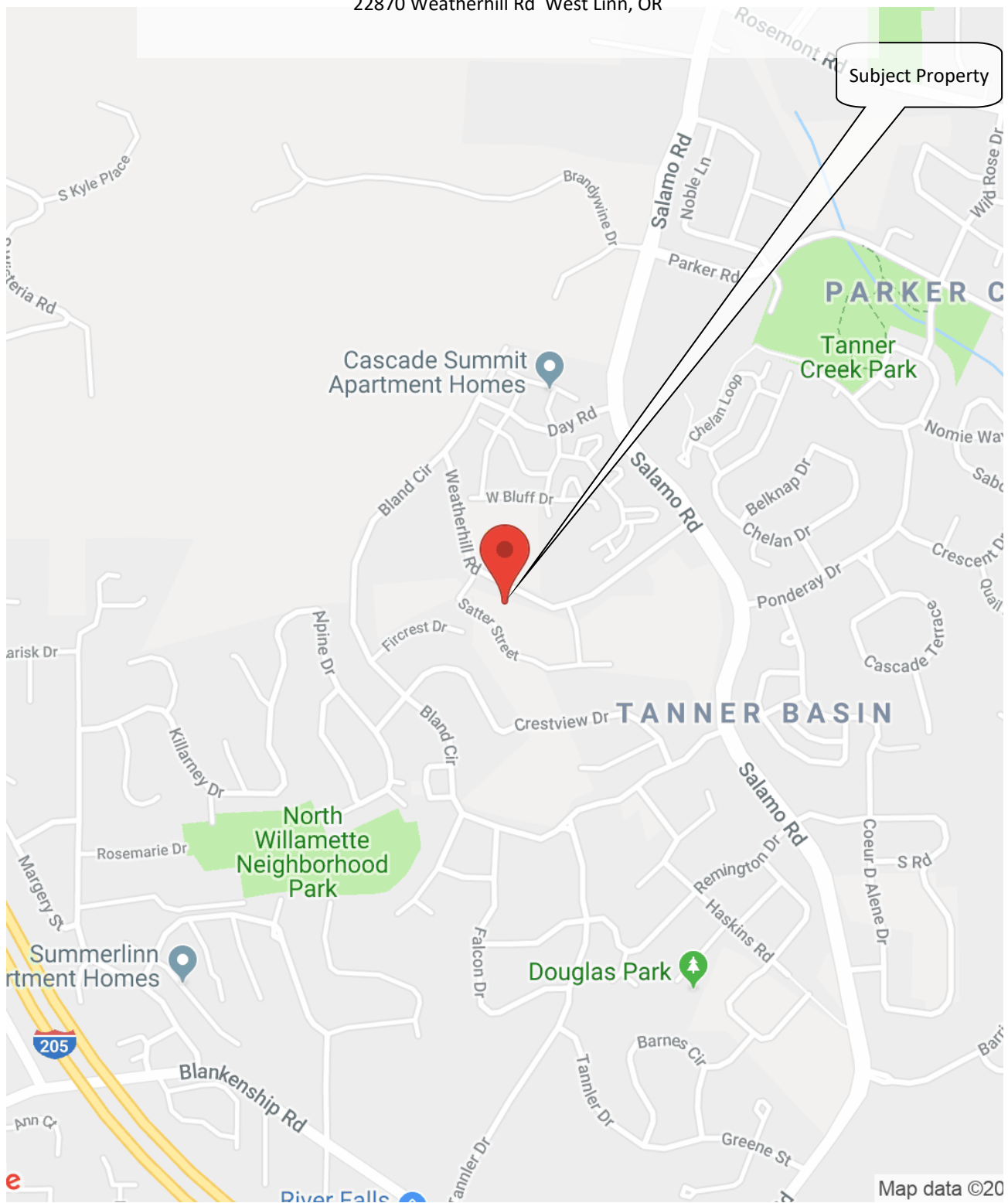
Site Vicinity Map

Topographic Map

Site Plan

Groundwater Flow Map

22870 Weatherhill Rd West Linn, OR

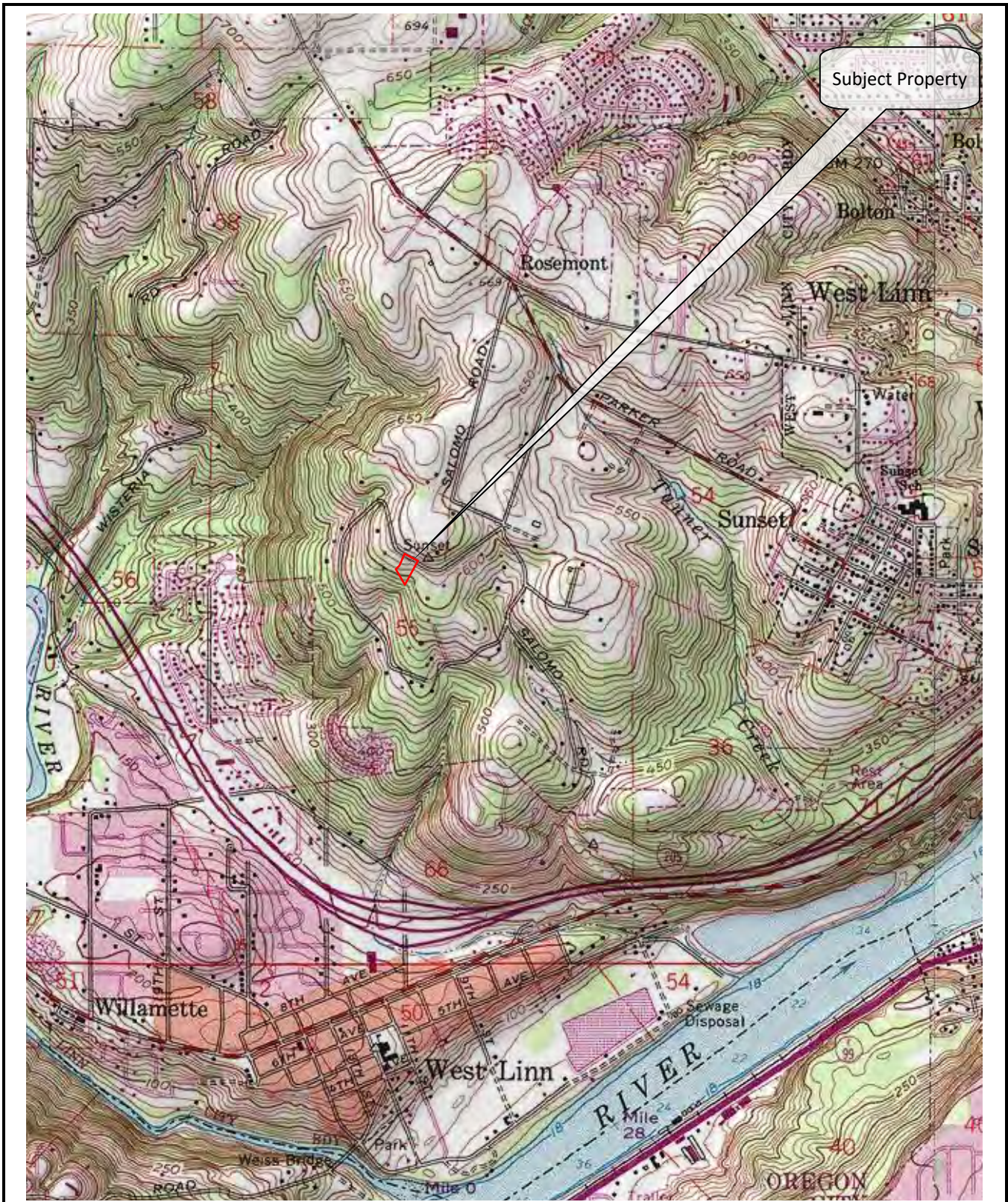


11080 SW Allen Blvd. Ste. 100
Beaverton, Oregon 97005
(503) 292-5346

FIGURE 1: SITE VICINITY MAP

Site Name: Residential Dwelling
Project Number: 18-22248
(Drawing NOT TO SCALE)





11080 SW Allen Blvd. Ste. 100
 Beaverton, Oregon 97005
 (503) 292-5346

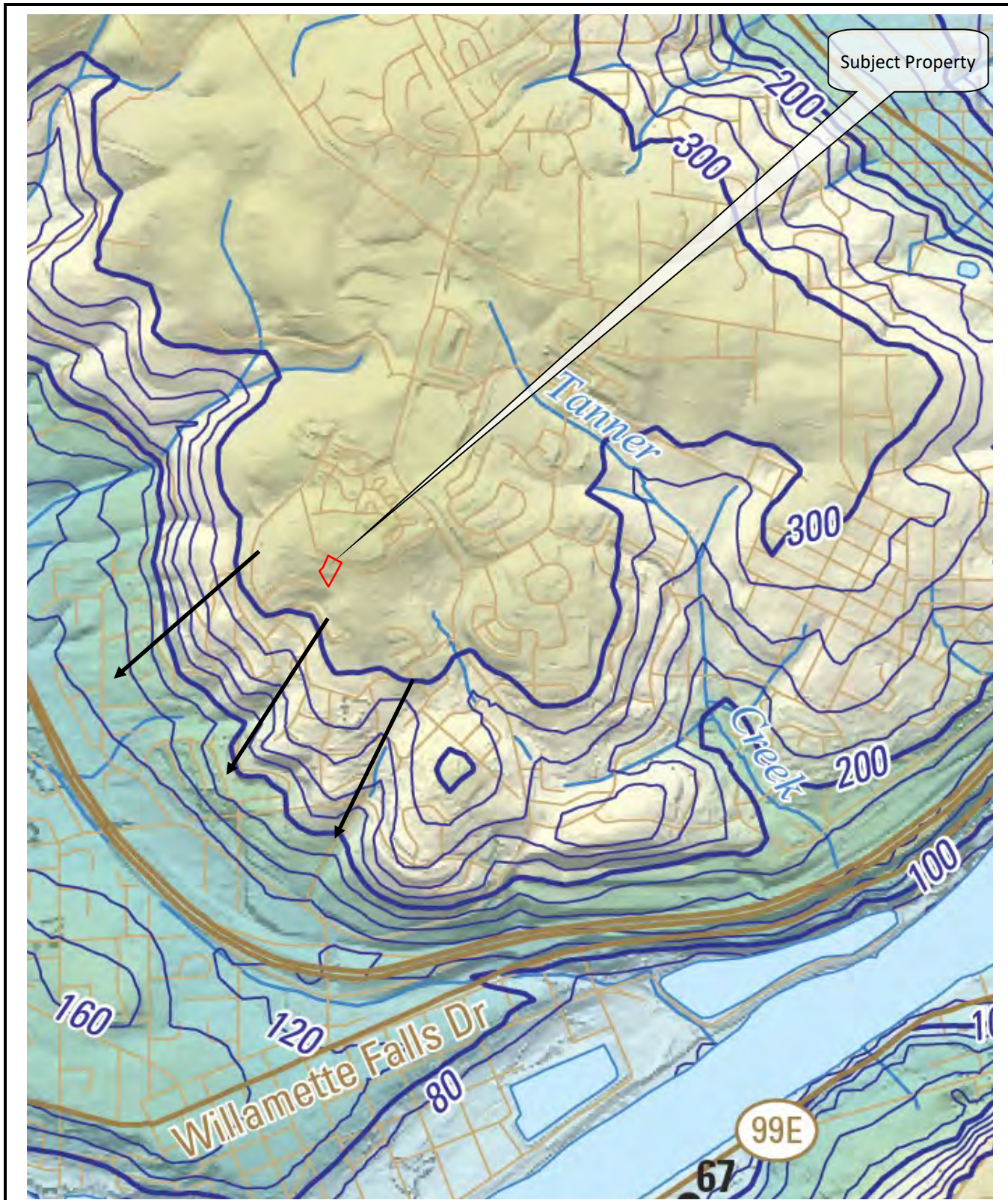
FIGURE 2: TOPOGRAPHIC MAP

Site Name: Residential Dwelling

Project Number: 18-22248

Source: U.S.G.S. 7.5 Minute Topographic Map
 Canby, OR, Quadrangle, 1985





11080 SW Allen Blvd. Ste. 100
 Beaverton, Oregon 97005
 (503) 292-5346

FIGURE 4: GROUNDWATER FLOW

Site Name: Residential Dwelling

Project Number: 18-22248

(Drawing NOT TO SCALE)

U.S.G.S. Scientific Investigations Report 2008,

Estimated Water Table Elevation-Plate 2

N



APPENDIX A: SITE PHOTOGRAPHS



Subject Property, Dwelling



Subject Property, Driveway



Subject Property



Subject Property, Dwelling



Subject Property, Back



Subject Property, Dwelling



Interior of Shed



Interior of Shed



Subject Property



Subject Property



Adjacent Site, North



Adjacent Site, East



Adjacent Site, South, Typical



Adjacent Site, West, Typical

APPENDIX B: HISTORICAL RESEARCH DOCUMENTATION

EXHIBIT B-1: AERIAL PHOTOGRAPHS



Residential Dwelling

22870 S Weatherhill Road

West Linn, OR 97068

Inquiry Number: 5378964.8

August 01, 2018

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

08/01/18

Site Name:

Residential Dwelling
22870 S Weatherhill Road
West Linn, OR 97068
EDR Inquiry # 5378964.8

Client Name:

Alpha Environmental Services
11080 SW Allen Blvd Suite 100
Beaverton, OR 97005-0000
Contact: Casey Ward



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2000	1"=500'	Acquisition Date: July 29, 2000	USGS/DOQQ
1994	1"=500'	Flight Date: June 20, 1994	USGS
1981	1"=500'	Flight Date: July 26, 1981	USDA
1975	1"=500'	Flight Date: September 13, 1975	USGS
1970	1"=500'	Flight Date: July 06, 1970	USGS
1960	1"=500'	Flight Date: July 17, 1960	USGS
1955	1"=500'	Flight Date: August 17, 1955	USGS
1952	1"=500'	Flight Date: July 13, 1952	USGS
1948	1"=500'	Flight Date: July 13, 1948	USDA
1936	1"=500'	Flight Date: May 12, 1936	ACOE

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.



INQUIRY #: 5378964.8

YEAR: 2016

— = 500'



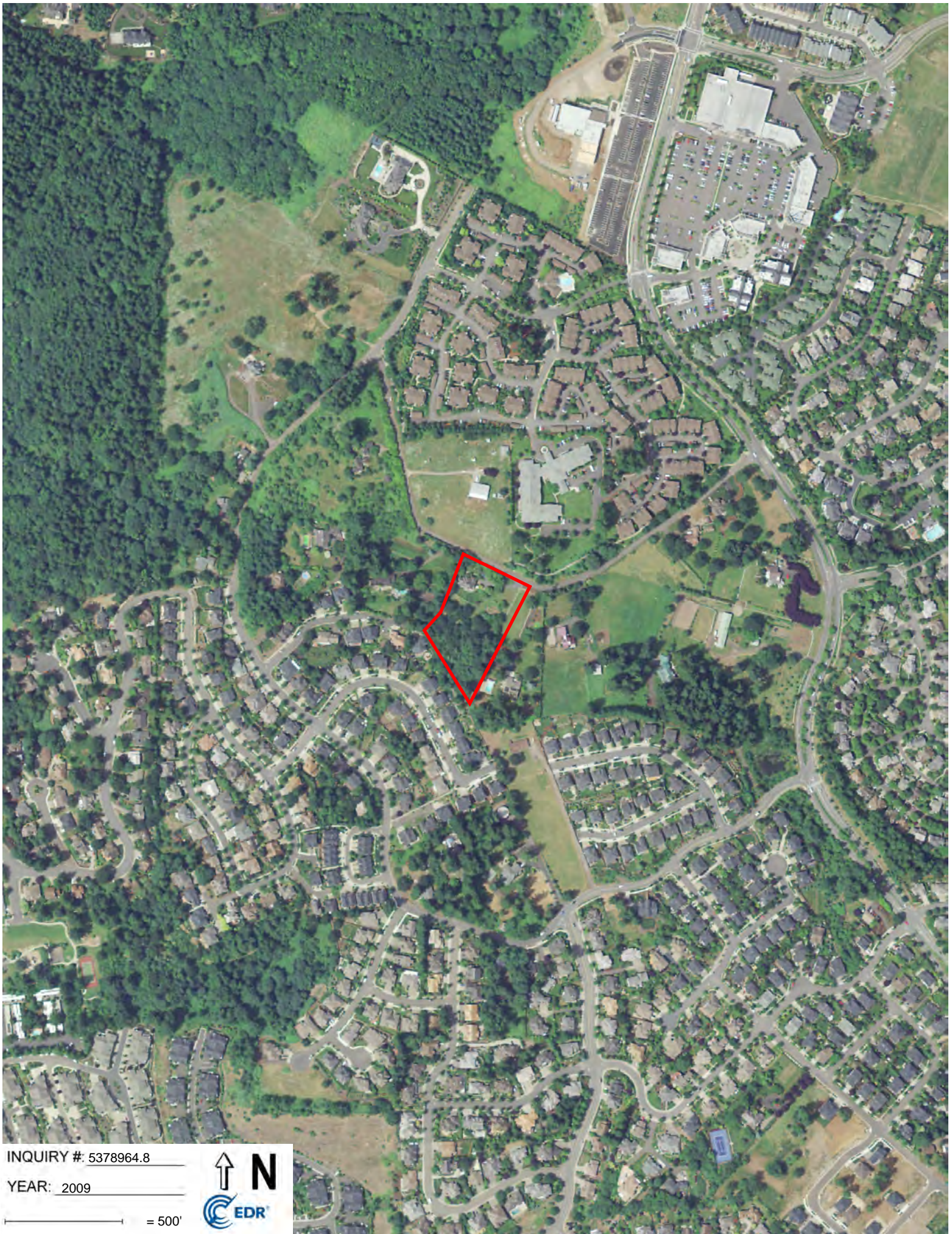


INQUIRY #: 5378964.8

YEAR: 2012

 = 500'





INQUIRY #: 5378964.8

YEAR: 2009

 = 500'



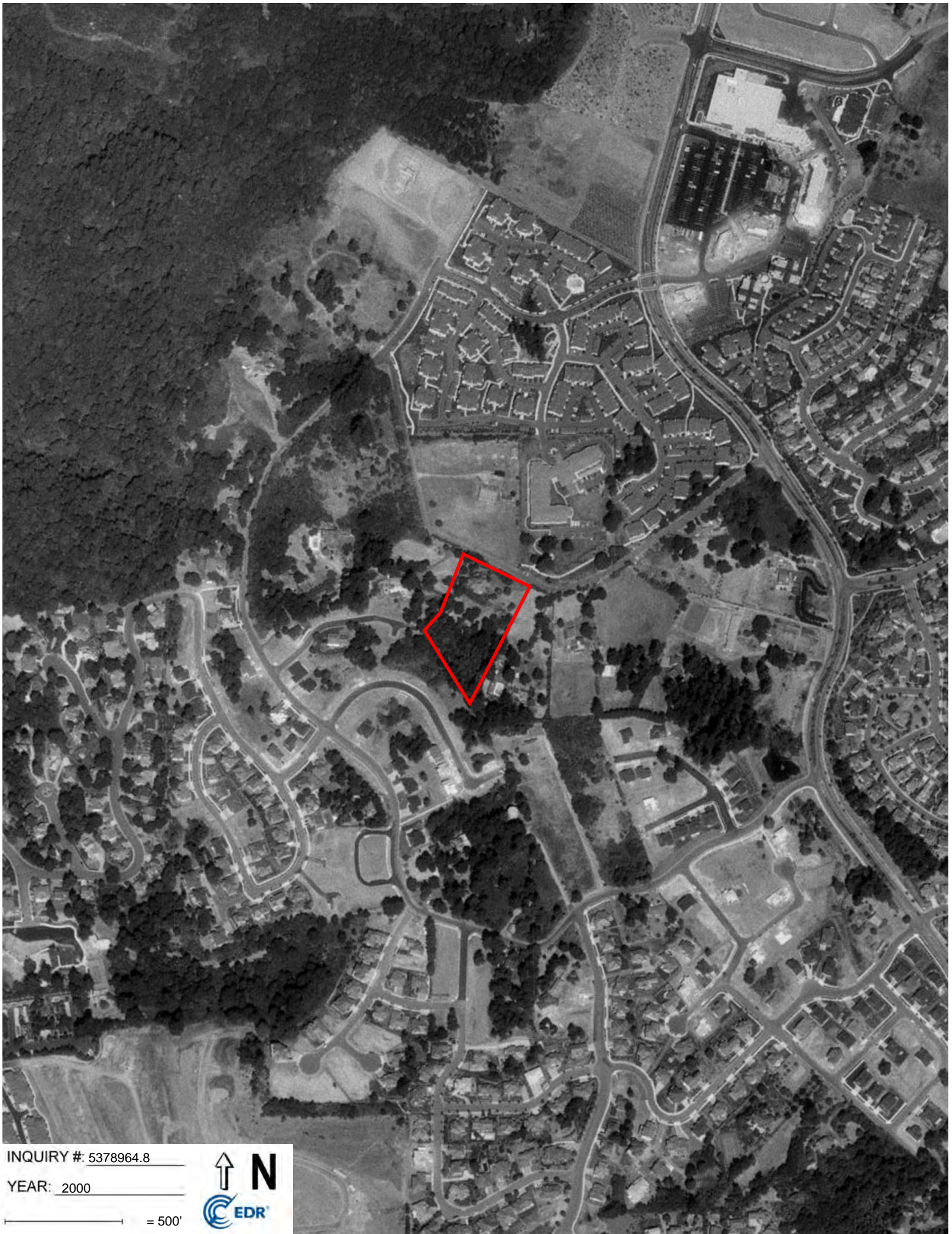


INQUIRY #: 5378964.8

YEAR: 2006

— = 500'





INQUIRY # 5378964.8

YEAR: 2000

 = 500'





INQUIRY #: 5378964.8

YEAR: 1994

— = 500'





INQUIRY #: 5378964.8

YEAR: 1981

— = 500'





INQUIRY #: 5378964.8

YEAR: 1975

— = 500'





INQUIRY #: 5378964.8

YEAR: 1970

— = 500'





INQUIRY #: 5378964.8

YEAR: 1960

— = 500'





INQUIRY #: 5378964.8

YEAR: 1955

— = 500'





INQUIRY #: 5378964.8

YEAR: 1952

— = 500'





INQUIRY #: 5378964.8

YEAR: 1948

— = 500'





INQUIRY #: 5378964.8

YEAR: 1936

— = 500'



EXHIBIT B-2: FIRE INSURANCE MAPS

Sanborn Maps are not available due to the Property falling outside the map coverage area.

Residential Dwelling
22870 S Weatherhill Road
West Linn, OR 97068

Inquiry Number: 5378964.3

August 01, 2018

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

08/01/18

Site Name:

Residential Dwelling
22870 S Weatherhill Road
West Linn, OR 97068
EDR Inquiry # 5378964.3

Client Name:

Alpha Environmental Services
11080 SW Allen Blvd Suite 100
Beaverton, OR 97005-0000
Contact: Casey Ward



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Alpha Environmental Services were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # F68E-45B1-98DB
PO # 18-22248
Project Residential Dwelling



Sanborn® Library search results

Certification #: F68E-45B1-98DB

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Alpha Environmental Services (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice. Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXHIBIT B-3: CITY DIRECTORIES

Residential Dwelling

22870 S Weatherhill Road
West Linn, OR 97068

Inquiry Number: 5378964.5
August 02, 2018

The EDR-City Directory Image Report

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2017 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.

Data by

infoUSA[®]

Copyright©2008
All Rights Reserved

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
1995	<input type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
1992	<input type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
1987	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1984	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1979	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1974	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1969	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1964	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory

FINDINGS

TARGET PROPERTY STREET

22870 S Weatherhill Road
West Linn, OR 97068

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<u>S WEATHERHILL RD</u>			
2014	-	EDR Digital Archive	Street not listed in Source
2010	pg A2	EDR Digital Archive	
2005	pg A4	EDR Digital Archive	
2000	pg A5	EDR Digital Archive	
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1987	-	Polk's City Directory	Street not listed in Source
1984	-	Polk's City Directory	Street not listed in Source
1979	-	Polk's City Directory	Street not listed in Source
1974	-	Polk's City Directory	Street not listed in Source
1969	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

WEATHERHILL RD

2014	pg A1	EDR Digital Archive	
2010	pg A3	EDR Digital Archive	
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1987	-	Polk's City Directory	Street not listed in Source
1984	-	Polk's City Directory	Street not listed in Source
1979	-	Polk's City Directory	Street not listed in Source
1974	-	Polk's City Directory	Street not listed in Source
1969	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<u>SATTER ST</u>			
2014	-	EDR Digital Archive	Street not listed in Source
2010	-	EDR Digital Archive	Street not listed in Source
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1987	-	Polk's City Directory	Street not listed in Source
1984	-	Polk's City Directory	Street not listed in Source
1979	-	Polk's City Directory	Street not listed in Source
1974	-	Polk's City Directory	Street not listed in Source
1969	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

City Directory Images

WEATHERHILL RD 2014

22810 DEHNING, WILLIAM M
22840 SEAVEY, DALE L
22850 DEVRIES, JOHN C
KINDERMUSIK WITH MISS JINI
22864 WEI, LI L
22870 DEAN, DAVID E
22882 LOMBARDO, PHIL
22910 STILES, CHRISTOPHER M
22915 HARDY, DAVID L

S WEATHERHILL RD 2010

22810 DEHNING, WILLIAM M
22840 BYERS, ROBERT E
22850 DEVRIES, JOHN C
22864 WEI, LI L
22870 DEAN, DAVID E
22882 SULLIVAN, WAYNE H
22910 MASLEN, DAVID R
22915 HARDY, WILLIAM M

WEATHERHILL RD 2010

22850 KINDERMUSIK WITH MISS JINI

S WEATHERHILL RD 2005

22840 PADGETT, JEAN J
22850 DEVRIES, JOHN C
22864 INBERG, RONALD L
22870 DEAN, DAVID E
22882 RICHARDS, SCOTT C
22910 MASLEN, JOHN R
22915 HARDY, WILLIAM M

S WEATHERHILL RD 2000

22840 DAVIS, PETER J

EXHIBIT B-4: TITLE SEARCH RECORDS

Not Applicable to This Report

APPENDIX C: REGULATORY RECORDS DOCUMENTATION

EXHIBIT C-1: MAPPED DATABASE REPORT

The Mapped Database Report is only included in the electronic version of this report.

Residential Dwelling

22870 S Weatherhill Road

West Linn, OR 97068

Inquiry Number: 5378964.2s

August 01, 2018

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	9
Government Records Searched/Data Currency Tracking	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-15
Physical Setting Source Map Findings	A-17
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

22870 S WEATHERHILL ROAD
WEST LINN, OR 97068

COORDINATES

Latitude (North): 45.3591540 - 45° 21' 32.95"
Longitude (West): 122.6515010 - 122° 39' 5.40"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 527295.8
UTM Y (Meters): 5022690.5
Elevation: 600 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 6067204 CANBY, OR
Version Date: 2014

North Map: 6067228 LAKE OSWEGO, OR
Version Date: 2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140630
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
22870 S WEATHERHILL ROAD
WEST LINN, OR 97068

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	HEATING OIL TANK	22882 WEATHERHILL RD	LUST	Higher	93, 0.018, NNW
2	DAYS FARM INC	3131 S ROSS ROAD	LUST	Lower	1327, 0.251, East
3	HEATING OIL TANK	3484 CHELAN DR	LUST	Higher	1424, 0.270, ENE
4	HEATING OIL TANK	3300 FOX RUN	LUST	Lower	1898, 0.359, SE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

ECSI..... Environmental Cleanup Site Information System

CRL..... Confirmed Release List and Inventory

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Facilities List

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

UST..... Underground Storage Tank Database

AST..... Aboveground Storage Tanks

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Controls Recorded at ESCI Sites

INST CONTROL..... Institutional Controls Recorded at ESCI Sites

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Projects

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY..... Recycling Facility Location Listing

HIST LF..... Old Closed SW Disposal Sites

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI..... Open Dump Inventory

IHS OPEN DUMPS..... Open Dumps on Indian Land

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

AOCONCERN..... Columbia Slough
US HIST CDL..... Delisted National Clandestine Laboratory Register
CDL..... Uninhabitable Drug Lab Properties
US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Spill Database
OR HAZMAT..... Hazmat/Incidents
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines
FINDS..... Facility Index System/Facility Registry System

EXECUTIVE SUMMARY

ECHO.....	Enforcement & Compliance History Information
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
AIRS.....	Oregon Title V Facility Listing
COAL ASH.....	Coal Ash Disposal Sites Listing
DRYCLEANERS.....	Drycleaning Facilities
Enforcement.....	Enforcement Action Listing
Financial Assurance.....	Financial Assurance Information Listing
HSIS.....	Hazardous Substance Information Survey
MANIFEST.....	Manifest Information
NPDES.....	Wastewater Permits Database
UIC.....	Underground Injection Control Program Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF.....	Recovered Government Archive Solid Waste Facilities List
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's LUST Database List.

A review of the LUST list, as provided by EDR, and dated 04/03/2018 has revealed that there are 4

EXECUTIVE SUMMARY

LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HEATING OIL TANK Facility ID: 03-99-0644 Cleanup Complete: 07/24/2013	22882 WEATHERHILL RD	NNW 0 - 1/8 (0.018 mi.)	1	8
HEATING OIL TANK Facility ID: 03-05-2143 Cleanup Complete: 03/16/2006	3484 CHELAN DR	ENE 1/4 - 1/2 (0.270 mi.)	3	8
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DAYS FARM INC Facility ID: 03-92-0250 Cleanup Complete: 07/08/1996	3131 S ROSS ROAD	E 1/4 - 1/2 (0.251 mi.)	2	8
HEATING OIL TANK Facility ID: 03-93-5077 Cleanup Complete: 05/09/1995	3300 FOX RUN	SE 1/4 - 1/2 (0.359 mi.)	4	8

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5378964.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Upgradient Area

Areas of Concern










This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.







SITE NAME: Residential Dwelling
 ADDRESS: 22870 S Weatherhill Road
 West Linn OR 97068
 LAT/LONG: 45.359154 / 122.651501

CLIENT: Alpha Environmental Services
 CONTACT: Casey Ward
 INQUIRY #: 5378964.2s
 DATE: August 01, 2018 11:28 am

DETAIL MAP - 5378964.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Residential Dwelling
 ADDRESS: 22870 S Weatherhill Road
 West Linn OR 97068
 LAT/LONG: 45.359154 / 122.651501

CLIENT: Alpha Environmental Services
 CONTACT: Casey Ward
 INQUIRY #: 5378964.2s
 DATE: August 01, 2018 11:31 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
ECSI	1.000		0	0	0	0	NR	0
CRL	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		1	0	3	NR	NR	4
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<i>State and tribal institutional control / engineering control registries</i>								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
<i>State and tribal voluntary cleanup sites</i>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<i>State and tribal Brownfields sites</i>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>								
<i>Local Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
AOCONCERN	1.000		0	0	0	0	NR	0
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
<i>Local Land Records</i>								
LIENS 2	0.001		0	NR	NR	NR	NR	0
<i>Records of Emergency Release Reports</i>								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
OR HAZMAT	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
<i>Other Ascertainable Records</i>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDES	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Enforcement	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HSIS	0.001		0	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>EDR RECOVERED GOVERNMENT ARCHIVES</u>								
<i>Exclusive Recovered Govt. Archives</i>								
RGA HWS	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	1	0	3	0	0	4

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
1 NNW < 1/8 0.018 mi. 93 ft.	HEATING OIL TANK 22882 WEATHERHILL RD WEST LINN, OR 97068	LUST	S113906883 N/A
Relative: Higher	LUST: Region: North Western Region Facility ID: 03-99-0644 Cleanup Received Date: 06/18/1999 Cleanup Start Date: 06/16/1999 Cleanup Complete Date: 07/24/2013 Decode for Region: North West Region		
Actual: 631 ft.			
2 East 1/4-1/2 0.251 mi. 1327 ft.	DAYS FARM INC 3131 S ROSS ROAD WEST LINN, OR 97068	LUST	S100496628 N/A
Relative: Lower	LUST: Region: North Western Region Facility ID: 03-92-0250 Cleanup Received Date: 09/01/1992 Cleanup Start Date: 08/21/1992 Cleanup Complete Date: 07/08/1996 Decode for Region: North West Region		
Actual: 585 ft.			
3 ENE 1/4-1/2 0.270 mi. 1424 ft.	HEATING OIL TANK 3484 CHELAN DR WEST LINN, OR 97068	LUST	S107465609 N/A
Relative: Higher	LUST: Region: North Western Region Facility ID: 03-05-2143 Cleanup Received Date: 10/04/2005 Cleanup Start Date: 10/07/2005 Cleanup Complete Date: 03/16/2006 Decode for Region: North West Region		
Actual: 618 ft.			
4 SE 1/4-1/2 0.359 mi. 1898 ft.	HEATING OIL TANK 3300 FOX RUN WEST LINN, OR 97068	LUST	S103838874 N/A
Relative: Lower	LUST: Region: North Western Region Facility ID: 03-93-5077 Cleanup Received Date: 04/30/1993 Cleanup Start Date: 05/01/1993 Cleanup Complete Date: 05/09/1995 Decode for Region: North West Region		
Actual: 500 ft.			

Count: 0 records.

ORPHAN SUMMARY

<u>City</u>	<u>EDR ID</u>	<u>Site Name</u>	<u>Site Address</u>	<u>Zip</u>	<u>Database(s)</u>
NO SITES FOUND					

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: N/A
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: N/A
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: N/A
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/05/2017	Telephone: 703-603-8704
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 07/06/2018
Number of Days to Update: 92	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 05/18/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 05/18/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018	Source: EPA
Date Data Arrived at EDR: 03/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (206) 553-1200
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (206) 553-1200
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (206) 553-1200
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (206) 553-1200
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/14/2018	Source: Department of the Navy
Date Data Arrived at EDR: 05/18/2018	Telephone: 843-820-7326
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/09/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/27/2018
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2018	Telephone: 703-603-0695
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/29/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2018	Telephone: 703-603-0695
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/29/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/19/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/27/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ECSI: Environmental Cleanup Site Information System

Sites that are or may be contaminated and may require cleanup.

Date of Government Version: 07/01/2018
Date Data Arrived at EDR: 07/05/2018
Date Made Active in Reports: 07/23/2018
Number of Days to Update: 18

Source: Department of Environmental Quality
Telephone: 503-229-6629
Last EDR Contact: 07/05/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

CRL: Confirmed Release List and Inventory

All facilities with a confirmed release.

Date of Government Version: 05/01/2018
Date Data Arrived at EDR: 05/17/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 22

Source: Department of Environmental Quality
Telephone: 503-229-6170
Last EDR Contact: 05/17/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/01/2018
Date Made Active in Reports: 06/07/2018
Number of Days to Update: 37

Source: Department of Environmental Quality
Telephone: 503-229-6299
Last EDR Contact: 07/12/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/03/2018
Date Data Arrived at EDR: 05/17/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 22

Source: Department of Environmental Quality
Telephone: 503-229-5790
Last EDR Contact: 05/17/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018	Source: EPA Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 07/11/2018
Number of Days to Update: 136	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Varies

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 04/02/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 05/17/2018	Telephone: 503-229-5815
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 05/17/2018
Number of Days to Update: 22	Next Scheduled EDR Contact: 08/27/2018
	Data Release Frequency: Quarterly

AST: Aboveground Storage Tanks
Aboveground storage tank locations reported to the Office of State Fire Marshal.

Date of Government Version: 09/05/2017	Source: Office of State Fire Marshal
Date Data Arrived at EDR: 11/16/2017	Telephone: 503-378-3473
Date Made Active in Reports: 01/09/2018	Last EDR Contact: 05/03/2018
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/13/2018
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018	Source: EPA Region 8
Date Data Arrived at EDR: 05/18/2018	Telephone: 303-312-6137
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-7591
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-6136
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-9424
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 05/18/2018	Telephone: 415-972-3368
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 10
Date Data Arrived at EDR: 05/18/2018	Telephone: 206-553-2857
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Recorded at ESCI Sites

Engineering controls are physical measures selected or approved by the Director for the purpose of preventing or minimizing exposure to hazardous substances. Engineering controls may include, but are not limited to, fencing, capping, horizontal or vertical barriers, hydraulic controls, and alternative water supplies.

Date of Government Version: 07/01/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/05/2018	Telephone: 503-229-5193
Date Made Active in Reports: 07/23/2018	Last EDR Contact: 07/05/2018
Number of Days to Update: 18	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

INST CONTROL: Institutional Controls Recorded at ESCI Sites

An institutional control is a legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances. Institutional controls may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures.

Date of Government Version: 07/01/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/05/2018	Telephone: 503-229-5193
Date Made Active in Reports: 07/23/2018	Last EDR Contact: 07/05/2018
Number of Days to Update: 18	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 06/22/2018
Number of Days to Update: 142	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VCS: Voluntary Cleanup Program Sites

Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

Date of Government Version: 06/29/2018	Source: DEQ
Date Data Arrived at EDR: 07/03/2018	Telephone: 503-229-5256
Date Made Active in Reports: 07/23/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 20	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Projects

Brownfields investigations and/or cleanups that have been conducted in Oregon.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/01/2018
Date Data Arrived at EDR: 05/17/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 22

Source: Department of Environmental Quality
Telephone: 503-229-6801
Last EDR Contact: 05/17/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Annually

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/19/2018
Date Data Arrived at EDR: 03/21/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/20/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facility Location Listing

A listing of recycling facility locations.

Date of Government Version: 05/29/2018
Date Data Arrived at EDR: 05/31/2018
Date Made Active in Reports: 07/23/2018
Number of Days to Update: 53

Source: Department of Environmental Quality
Telephone: 503-229-5353
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Quarterly

HIST LF: Old Closed SW Disposal Sites

A list of solid waste disposal sites that have been closed for a long while.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 07/08/2003
Date Made Active in Reports: 07/18/2003
Number of Days to Update: 10

Source: Department of Environmental Quality
Telephone: 503-229-5409
Last EDR Contact: 07/08/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/30/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 05/04/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 05/11/2018
Number of Days to Update: 71

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: No Update Planned

AOC MU: East Multnomah County Area

Approximate extent of TSA VOC plume February , 2002

Date of Government Version: N/A
Date Data Arrived at EDR: 10/07/2002
Date Made Active in Reports: 10/22/2002
Number of Days to Update: 15

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AOC COL: Columbia Slough

Columbia Slough waterway boundaries.

Date of Government Version: 08/10/2005
Date Data Arrived at EDR: 05/17/2006
Date Made Active in Reports: 06/16/2006
Number of Days to Update: 30

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CDL: Uninhabitable Drug Lab Properties

The properties listed on these county pages have been declared by a law enforcement agency to be unfit for use due to meth lab and/or storage activities. The properties are considered uninhabitable until cleaned up by a state certified decontamination contractor and a certificate of fitness is issued by the Oregon Health Division.

Date of Government Version: 05/03/2018
Date Data Arrived at EDR: 05/03/2018
Date Made Active in Reports: 05/09/2018
Number of Days to Update: 6

Source: Department of Consumer & Business Services
Telephone: 503-378-4133
Last EDR Contact: 05/03/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CDL 2: Clandestine Drug Lab Site Listing

A listing of clandestine drug lab site locations included in the Incident database.

Date of Government Version: 04/01/2018	Source: Oregon State Police
Date Data Arrived at EDR: 05/03/2018	Telephone: 503-373-1540
Date Made Active in Reports: 06/07/2018	Last EDR Contact: 05/03/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/13/2018
	Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/22/2018	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/01/2018	Telephone: 202-307-1000
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/30/2018
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 05/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/30/2018	Telephone: 202-564-6023
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/27/2018	Telephone: 202-366-4555
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 03/27/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 07/09/2018
	Data Release Frequency: Quarterly

SPILLS: Spill Data

Oil and hazardous material spills reported to the Environmental Response Program.

Date of Government Version: 04/03/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 04/06/2018	Telephone: 503-229-5815
Date Made Active in Reports: 05/15/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 39	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Semi-Annually

HAZMAT: Hazmat/Incidents

Hazardous material incidents reported to the State Fire Marshal by emergency responders. The hazardous material may or may not have been released.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/03/2018
Date Made Active in Reports: 06/07/2018
Number of Days to Update: 35

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 05/03/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 05/01/2006
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/25/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/13/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 05/15/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/27/2018
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2018	Telephone: 202-566-1917
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/27/2018
Number of Days to Update: 87	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/07/2018
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/08/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 06/22/2018
Number of Days to Update: 198	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Every 4 Years

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 01/10/2018	Telephone: 202-566-0250
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 05/25/2018
Number of Days to Update: 2	Next Scheduled EDR Contact: 09/03/2018
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 07/27/2018
Number of Days to Update: 77	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: 703-416-0223
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/17/2017	Telephone: 202-564-8600
Date Made Active in Reports: 12/08/2017	Last EDR Contact: 07/20/2018
Number of Days to Update: 21	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 07/06/2018
Number of Days to Update: 3	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: 202-566-0500
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 07/13/2018
Number of Days to Update: 126	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 07/09/2018
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 07/23/2018
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 06/07/2018
Number of Days to Update: 76	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 06/04/2018
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 07/27/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/03/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/05/2018	Telephone: 202-343-9775
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 07/05/2018
Number of Days to Update: 85	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/03/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2018
Date Data Arrived at EDR: 04/16/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 74

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/09/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/07/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/18/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/13/2018
Date Data Arrived at EDR: 05/30/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 30

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2018
Date Data Arrived at EDR: 05/31/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 05/30/2018
Number of Days to Update: 49	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 05/30/2018
Number of Days to Update: 97	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/08/2018	Source: Department of Interior
Date Data Arrived at EDR: 03/13/2018	Telephone: 202-208-2609
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/20/2018
Number of Days to Update: 87	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018	Source: EPA
Date Data Arrived at EDR: 02/23/2018	Telephone: (206) 553-1200
Date Made Active in Reports: 03/23/2018	Last EDR Contact: 06/06/2018
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 02/25/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/17/2018	Telephone: 202-564-2280
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/06/2018
Number of Days to Update: 83	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016	Source: Department of Defense
Date Data Arrived at EDR: 10/31/2017	Telephone: 703-704-1564
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 07/13/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 01/04/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/19/2018	Telephone: 202-564-0527
Date Made Active in Reports: 04/13/2018	Last EDR Contact: 06/01/2018
Number of Days to Update: 84	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/20/2018	Source: EPA
Date Data Arrived at EDR: 02/21/2018	Telephone: 800-385-6164
Date Made Active in Reports: 03/23/2018	Last EDR Contact: 05/23/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 09/03/2018
	Data Release Frequency: Quarterly

AIRS: Oregon Title V Facility Listing

A listing of Title V facility source and emissions information.

Date of Government Version: 05/10/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 05/15/2018	Telephone: 503-229-6459
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 24	Next Scheduled EDR Contact: 04/17/2047
	Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Sites Listing

A listing of coal ash disposal sites.

Date of Government Version: 12/31/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 03/16/2018	Telephone: 541-298-7255
Date Made Active in Reports: 05/15/2018	Last EDR Contact: 06/01/2018
Number of Days to Update: 60	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Facilities

A listing of registered drycleaning facilities in Oregon.

Date of Government Version: 05/01/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 05/04/2018	Telephone: 503-229-6783
Date Made Active in Reports: 06/07/2018	Last EDR Contact: 07/25/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Annually

ENF: Enforcement Action Listing

Enforcement actions

Date of Government Version: 06/19/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/21/2018	Telephone: 503-229-5696
Date Made Active in Reports: 07/23/2018	Last EDR Contact: 06/21/2018
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information for hazardous waste facilities.

Date of Government Version: 05/21/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/21/2018	Telephone: 541-633-2011
Date Made Active in Reports: 07/23/2018	Last EDR Contact: 06/01/2018
Number of Days to Update: 32	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Financial Assurance 2: Financial Assurance Information Listing

Financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/30/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/08/2018	Telephone: 503-229-5521
Date Made Active in Reports: 07/23/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 45	Next Scheduled EDR Contact: 09/03/2018
	Data Release Frequency: Semi-Annually

HSIS: Hazardous Substance Information Survey

Companies in Oregon submitting the Hazardous Substance Information Survey and either reporting or not reporting hazardous substances.

Date of Government Version: 05/03/2018	Source: State Fire Marshal's Office
Date Data Arrived at EDR: 05/03/2018	Telephone: 503-373-1540
Date Made Active in Reports: 06/07/2018	Last EDR Contact: 05/03/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/13/2018
	Data Release Frequency: Semi-Annually

OR MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/02/2017	Telephone: N/A
Date Made Active in Reports: 10/11/2017	Last EDR Contact: 05/04/2018
Number of Days to Update: 131	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Annually

NPDES: Wastewater Permits Database

A listing of permitted wastewater facilities.

Date of Government Version: 06/12/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/15/2018	Telephone: 503-229-5657
Date Made Active in Reports: 07/23/2018	Last EDR Contact: 05/04/2018
Number of Days to Update: 38	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Varies

UIC: Underground Injection Control Program Database

DEQ's Underground Injection Control Program is authorized by the Environmental Protection Agency (EPA) to regulate all underground injection in Oregon to protect groundwater resources.

Date of Government Version: 06/21/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/26/2018	Telephone: 503-229-5945
Date Made Active in Reports: 07/23/2018	Last EDR Contact: 06/20/2018
Number of Days to Update: 27	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists.

Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A

Source: Department of Environmental Quality

Date Data Arrived at EDR: 07/01/2013

Telephone: N/A

Date Made Active in Reports: 12/27/2013

Last EDR Contact: 06/01/2012

Number of Days to Update: 179

Next Scheduled EDR Contact: N/A

Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 04/30/2018

Source: Department of Environmental Conservation

Date Data Arrived at EDR: 05/03/2018

Telephone: 518-402-8651

Date Made Active in Reports: 06/07/2018

Last EDR Contact: 05/03/2018

Number of Days to Update: 35

Next Scheduled EDR Contact: 08/13/2018

Data Release Frequency: Quarterly

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017

Source: Department of Natural Resources

Date Data Arrived at EDR: 06/15/2018

Telephone: N/A

Date Made Active in Reports: 07/09/2018

Last EDR Contact: 06/11/2018

Number of Days to Update: 24

Next Scheduled EDR Contact: 09/24/2018

Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Listings

Source: Employment Department

Telephone: 503-947-1420

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data

Source: Oregon Geospatial Enterprise Office

Telephone: 503-378-2166

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

RESIDENTIAL DWELLING
22870 S WEATHERHILL ROAD
WEST LINN, OR 97068

TARGET PROPERTY COORDINATES

Latitude (North):	45.359154 - 45° 21' 32.95"
Longitude (West):	122.651501 - 122° 39' 5.40"
Universal Transverse Mercator:	Zone 10
UTM X (Meters):	527295.8
UTM Y (Meters):	5022690.5
Elevation:	600 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6067204 CANBY, OR
Version Date:	2014
North Map:	6067228 LAKE OSWEGO, OR
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

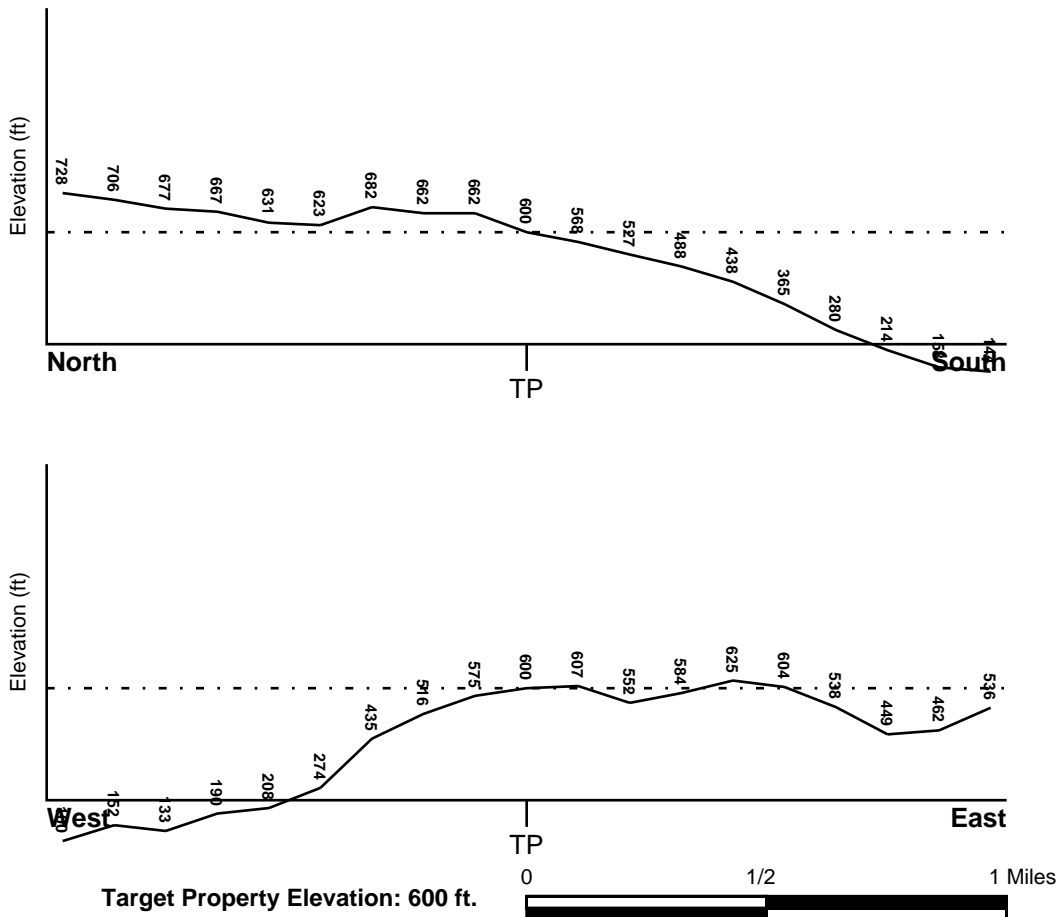
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
41047C0075G	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
Not Reported	

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
CANBY	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

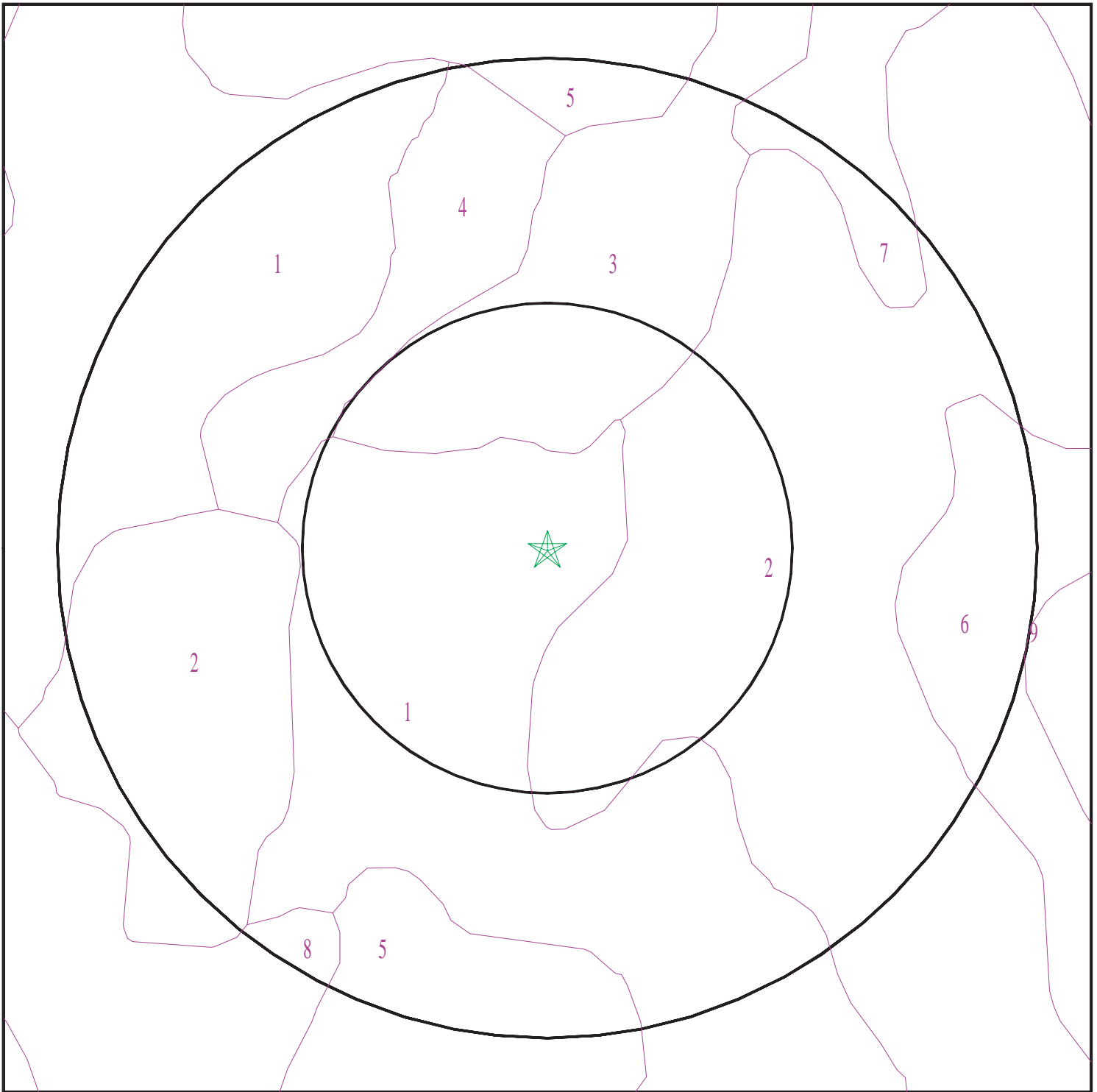
Era: Cenozoic
System: Tertiary
Series: Miocene volcanic rocks
Code: Tmv (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

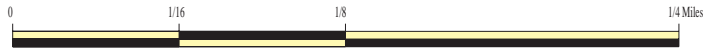
Category: Volcanic Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5378964.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Residential Dwelling
ADDRESS: 22870 S Weatherhill Road
West Linn OR 97068
LAT/LONG: 45.359154 / 122.651501

CLIENT: Alpha Environmental Services
CONTACT: Casey Ward
INQUIRY #: 5378964.2s
DATE: August 01, 2018 11:32 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Saum

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 127 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
2	7 inches	25 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
3	25 inches	50 inches	gravelly silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 4 Min: 1.4	Max: 6 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
4	50 inches	53 inches	unweathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 2

Soil Component Name: Nekia

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 99 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 6 Min: 5.1
2	18 inches	38 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5
3	38 inches	42 inches	unweathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 3

Soil Component Name: Saum

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 127 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
2	7 inches	25 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
3	25 inches	50 inches	gravelly silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 4 Min: 1.4	Max: 6 Min: 5.6
4	50 inches	53 inches	unweathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 4

Soil Component Name: Jory

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	12 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 4.5
2	12 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5

Soil Map ID: 5

Soil Component Name: Nekia

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 99 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 6 Min: 5.1
2	18 inches	38 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5
3	38 inches	42 inches	unweathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 6

Soil Component Name: Delena

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 23 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	11 inches	25 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14 Min: 4	Max: 6.5 Min: 5.6
3	25 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0.42 Min: 0.01	Max: 7.3 Min: 6.1

Soil Map ID: 7

Soil Component Name: Borges

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 8 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 6 Min: 5.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	18 inches	44 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 6 Min: 5.6
3	44 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 6 Min: 5.6

Soil Map ID: 8

Soil Component Name: Saum

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 127 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	7 inches	25 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
3	25 inches	50 inches	gravelly silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 4 Min: 1.4	Max: 6 Min: 5.6
4	50 inches	53 inches	unweathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 9

Soil Component Name: Cornelius

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 99 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	16 inches	33 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
3	33 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 5.5 Min: 5.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	USGS40000992799	1/4 - 1/2 Mile East
A3	USGS40000992797	1/4 - 1/2 Mile ESE
B5	USGS40000992805	1/4 - 1/2 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

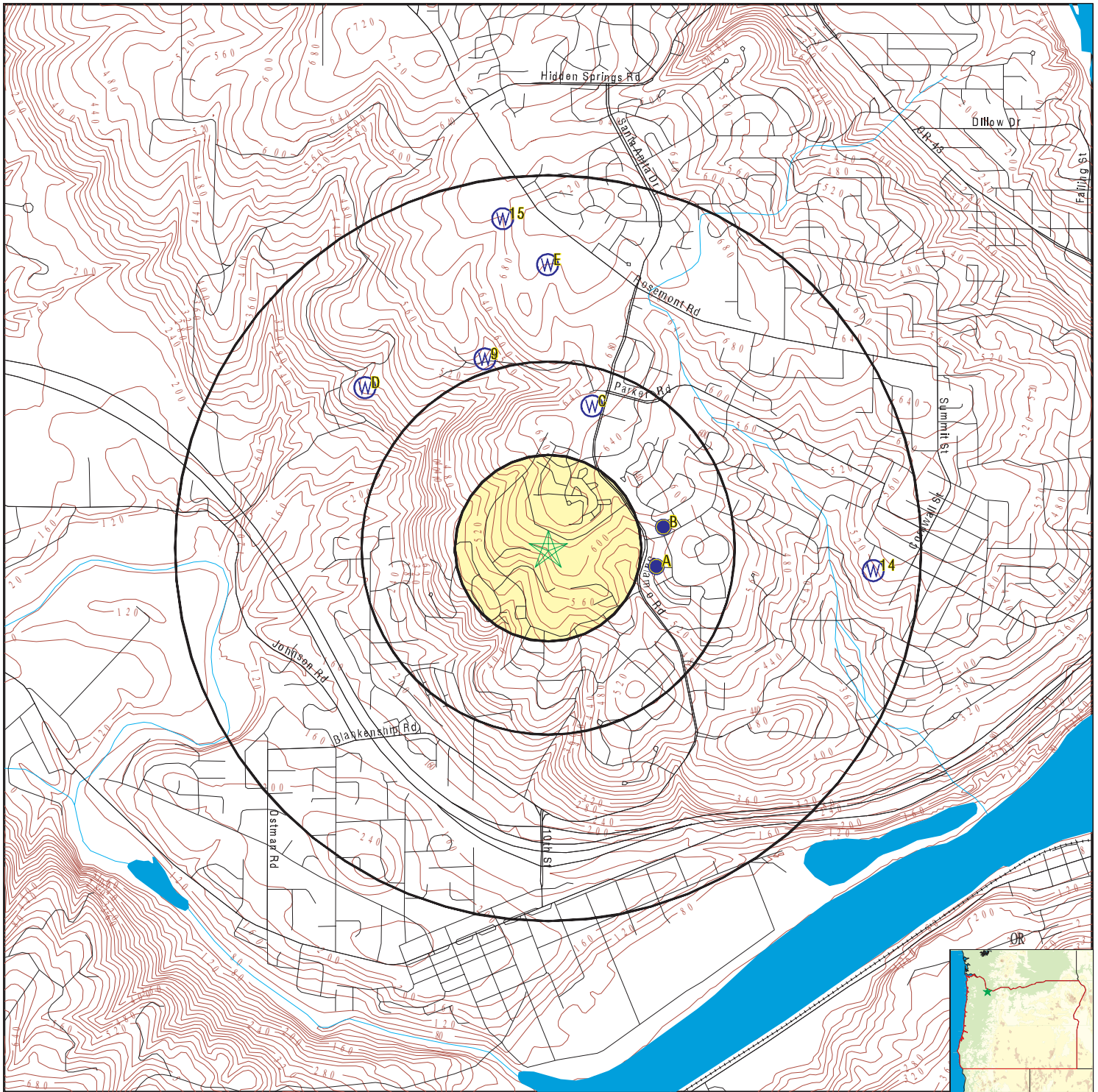
Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

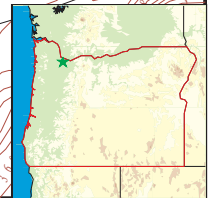
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	ORW500000006952	1/4 - 1/2 Mile East
A4	ORW500000006949	1/4 - 1/2 Mile ESE
B6	ORW500000001235	1/4 - 1/2 Mile East
C7	ORI500000045823	1/4 - 1/2 Mile NNE
C8	ORW500000012066	1/4 - 1/2 Mile NNE
9	ORI500000037935	1/2 - 1 Mile NNW
D10	ORI500000039759	1/2 - 1 Mile NW
D11	ORI500000037981	1/2 - 1 Mile NW
E12	ORI500000052991	1/2 - 1 Mile North
E13	ORI500000053335	1/2 - 1 Mile North
14	ORI500000053334	1/2 - 1 Mile East
15	ORW500000007760	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 5378964.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Oil, gas or related wells



SITE NAME: Residential Dwelling
 ADDRESS: 22870 S Weatherhill Road
 West Linn OR 97068
 LAT/LONG: 45.359154 / 122.651501

CLIENT: Alpha Environmental Services
 CONTACT: Casey Ward
 INQUIRY #: 5378964.2s
 DATE: August 01, 2018 11:31 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A1
East
1/4 - 1/2 Mile
Lower

FED USGS USGS40000992799

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-452131122384001		
Monloc name:	02S/01E-35AAC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17090007	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	45.3585814
Longitude:	-122.6455343	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	585
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19880817	Welldepth:	547
Welldepth units:	ft	Wellholedepth:	560
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A2
East
1/4 - 1/2 Mile
Lower

OR WELLS ORW50000006952

Fid:	6951	Objectid:	7057
Logid:	CLAC 3869	Lstupdate:	09/21/2005
Estabby:	KARL WOZNIAK	Xysource:	1:24,000 MAP
Horizerr:	250	Sourceorg:	OWRD
Sourceowrd:	GWATER	Waypoint:	Not Reported
Welltag:	0		
Sownum:	0	Obswell:	9
Recwell:	9	Obsflagall:	Not Reported
Lsdelev:	585		
Latitude:	45.3585834479		
Longitude:	-122.64553321		
Site id:	ORW50000006952		

A3
ESE
1/4 - 1/2 Mile
Lower

FED USGS USGS40000992797

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-452130122384001		
Monloc name:	02S/01E-35AAC2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17090007	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	45.3583008
Longitude:	-122.6455343	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	580
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19910318	Welldepth:	0
Welldepth units:	ft	Wellholedepth:	690
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A4
ESE
1/4 - 1/2 Mile
Lower

OR WELLS ORW50000006949

Fid:	6948	Objectid:	7054
Logid:	CLAC 2954	Lstupdate:	09/21/2005
Estabblby:	KARL WOZNIAK	Xysource:	1:24,000 MAP
Horizerr:	250	Sourceorg:	OWRD
Sourceowrd:	GWATER	Waypoint:	Not Reported
Welltag:	0		
Sownum:	0	Obswell:	9
Recwell:	9	Obsflagall:	Not Reported
Lsdelev:	580		
Latitude:	45.3583001179		
Longitude:	-122.64553321		
Site id:	ORW50000006949		

B5
East
1/4 - 1/2 Mile
Lower

FED USGS USGS40000992805

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-452136122383801		
Monloc name:	02S/01E-35AAB		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17090007	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	45.3599758
Longitude:	-122.645151	Sourcemap scale:	24000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	605
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19720428	Welldepth:	709
Welldepth units:	ft	Wellholedepth:	709
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1976-03-12	144.7	

B6
East
1/4 - 1/2 Mile
Lower

OR WELLS ORW50000001235

Fid:	1234	Objectid:	1236
Logid:	CLAC 3407	Lstupdate:	01/01/1990
Estabby:	KARL WOZNIAK	Xysource:	UNKNOWN
Horizerr:	1000	Sourceorg:	OWRD
Sourceowrd:	USGS WILLGW	Waypoint:	Not Reported
Welltag:	0		
Sownum:	0	Obswell:	9
Recwell:	9	Obsflagall:	Not Reported
Lsdelev:	605		
Latitude:	45.3599752847		
Longitude:	-122.645150198		
Site id:	ORW50000001235		

C7
NNE
1/4 - 1/2 Mile
Higher

OR WELLS ORI500000045823

Fid:	45822	Well inspe:	0
Physical I:	Not Reported	Inspection:	2008-02-29 00:00:00.000
Startcard :	196286	WI county :	Not Reported
WI nbr:	Not Reported	Startcar00:	Not Reported
Well tag n:	Not Reported	No log:	Not Reported
Property o:	Not Reported	Inspecti00:	Not Reported
Special st:	0	Title:	Not Reported
Inspecti01:	Not Reported	Witnesses:	Not Reported
Name owner:	WILLAMETTE CHRISTIAN CHURCH		
Street:	Not Reported	City:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

State:	Not Reported	Zip:	Not Reported
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	Not Reported	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	Not Reported
Rough log :	Not Reported	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	Not Reported
Protective:	Not Reported	Well locke:	Not Reported
Consultant:	Not Reported	Water in v:	Not Reported
Seal test :	Not Reported	Samples ta:	Not Reported
Casing dia:	Not Reported	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	Not Reported
Dedicated :	Not Reported	Access por:	Not Reported
Access p00:	Not Reported	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	Not Reported	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	Not Reported
Drill ro00:	Not Reported	Drill cabl:	Not Reported
Drill ca00:	Not Reported	Drill reve:	Not Reported
Drill re00:	Not Reported	Drill auge:	Not Reported
Drill push:	Not Reported	Drill hand:	Not Reported
Drill holl:	Not Reported	Drill soni:	Not Reported
Drill othe:	Not Reported	Use domest:	Not Reported
Use irriga:	Not Reported	Use commun:	Not Reported
Use indust:	Not Reported	Use livest:	Not Reported
Use dewate:	Not Reported	Use monito:	Not Reported
Use therma:	Not Reported	Use inject:	Not Reported
Use piezom:	Not Reported	Use observ:	Not Reported
Use recove:	Not Reported	Use other:	Not Reported
Bentonite :	Not Reported	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	Not Reported	Bonded lic:	688
Unbonded l:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	1700	Township:	2
Township c:	S	Range:	1
Range char:	E	Sctn:	26
Qtr40:	NW	Qtr160:	SE
Latitude d:	45.36469000	Longitude :	-122.64933000
Gps horizo:	8.00000000	Year const:	2008
Date const:	Not Reported	Date con00:	Not Reported
Deficienci:	U	Previous i:	0
Inspected :	J J	Inspecte00:	113341
Wm region:	NW		
Well tag a:	WELL BEING DRILLED - NO ATTACHED ID		
Well tag01:	Not Reported	Depth:	Not Reported
Static wat:	Not Reported	Status of :	DIP
Location r:	Not Reported	Site visit:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Type of lo:	W	Casing cap:	Not Reported
Pictures t:	0	Street of :	Not Reported
Street o00:	3153 S BRANDYWINE DR		
Last updt :	2010-04-01 00:00:00.000		
Last upd00:	WRD\migrate	Rec creati:	2009-06-01 06:51:00.000
Rec crea00:	OWRD\migrate		
Latitude:	45.36469		
Loongitude:	-122.64933		
Site id:	ORI500000045823		

**C8
NNE
1/4 - 1/2 Mile
Higher**

OR WELLS ORW500000012066

Fid:	12065	Objectid:	12204
Logid:	CLAC 64598	Lstupdate:	10/26/2009
Estabblby:	JOSH HACKETT	Xysource:	SITE VISIT & DOQ
Horizerr:	250	Sourceorg:	OWRD
Sourceowrd:	GWATER	Waypoint:	Not Reported
Welltag:	91963		
Sownum:	0	Obswell:	9
Recwell:	9	Obsflagall:	Not Reported
Lsdelev:	665		
Latitude:	45.3646553349		
Longitude:	-122.648832993		
Site id:	ORW500000012066		

**9
NNW
1/2 - 1 Mile
Lower**

OR WELLS ORI500000037935

Fid:	37934	Well inspe:	0
Physical I:	Not Reported	Inspection:	2005-03-16 00:00:00.000
Startcard :	171831	WI county :	CLAC
WI nbr:	60825	Startcar00:	Not Reported
Well tag n:	Not Reported	No log:	Not Reported
Property o:	Not Reported	Inspecti00:	Not Reported
Special st:	0	Title:	Not Reported
Inspecti01:	Not Reported	Witnesses:	Not Reported
Name owner:	MARTIN CLARK CONSTRUCTION INC.		
Street:	Not Reported	City:	Not Reported
State:	Not Reported	Zip:	Not Reported
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	Not Reported	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	Not Reported
Rough log :	Not Reported	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	Not Reported
Protective:	Not Reported	Well locke:	Not Reported
Consultant:	Not Reported	Water in v:	Not Reported
Seal test :	Not Reported	Samples ta:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Casing dia:	Not Reported	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	Not Reported
Dedicated :	Not Reported	Access por:	Not Reported
Access p00:	Not Reported	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	Not Reported	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	Not Reported
Drill ro00:	Not Reported	Drill cabl:	Not Reported
Drill ca00:	Not Reported	Drill reve:	Not Reported
Drill re00:	Not Reported	Drill auge:	Not Reported
Drill push:	Not Reported	Drill hand:	Not Reported
Drill holl:	Not Reported	Drill soni:	Not Reported
Drill othe:	Not Reported	Use domest:	Not Reported
Use irriga:	Not Reported	Use comun:	Not Reported
Use indust:	Not Reported	Use livest:	Not Reported
Use dewate:	Not Reported	Use monito:	Not Reported
Use therma:	Not Reported	Use inject:	Not Reported
Use piezom:	Not Reported	Use observ:	Not Reported
Use recove:	Not Reported	Use other:	Not Reported
Bentonite :	Not Reported	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	71450	Bonded lic:	688
Unbonded I:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	2600	Township:	2
Township c:	S	Range:	1
Range char:	E	Sctn:	26
Qtr40:	NE	Qtr160:	SW
Latitude d:	45.36650000	Longitude :	-122.65498000
Gps horizo:	13.30000000	Year const:	2005
Date const:	Not Reported	Date con00:	Not Reported
Deficienci:	U	Previous i:	0
Inspected :	KAW	Inspecte00:	114307
Wm region:	NW		
Well tag a:	HOSE CLAMP		
Well tag01:	Not Reported	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	Not Reported	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SS
Pictures t:	0	Street of :	3003 S BRANDYWINE
Street o00:	3003 S BRANDYWINE DR, WEST LINN		
Last updt :	2005-03-31 10:53:26.000		
Last upd00:	wilckeka	Rec creati:	2009-06-01 06:51:00.000
Rec crea00:	OWRD\migrate		
Latitude:	45.3665		
Loongitude:	-122.65498		
Site id:	ORI500000037935		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

D10
NW
1/2 - 1 Mile
Lower

OR WELLS ORI500000039759

Fid:	39758	Well inspe:	0
Physical l:	Not Reported	Inspection:	2005-11-16 00:00:00.000
Startcard :	171833	WI county :	CLAC
WI nbr:	60821	Startcar00:	Not Reported
Well tag n:	Not Reported	No log:	Not Reported
Property o:	Not Reported	Inspecti00:	Not Reported
Special st:	0	Title:	Not Reported
Inspecti01:	Not Reported	Witnesses:	Not Reported
Name owner:	MARTIN CLARK CONSTRUCTION INC.		
Street:	Not Reported	City:	Not Reported
State:	Not Reported	Zip:	Not Reported
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	Not Reported	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	Not Reported
Rough log :	Not Reported	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	Not Reported
Protective:	Not Reported	Well locke:	Not Reported
Consultant:	Not Reported	Water in v:	Not Reported
Seal test :	Not Reported	Samples ta:	Not Reported
Casing dia:	Not Reported	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	Not Reported
Dedicated :	Not Reported	Access por:	Not Reported
Access p00:	Not Reported	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	Not Reported	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	Not Reported
Drill ro00:	Not Reported	Drill cabl:	Not Reported
Drill ca00:	Not Reported	Drill reve:	Not Reported
Drill re00:	Not Reported	Drill auge:	Not Reported
Drill push:	Not Reported	Drill hand:	Not Reported
Drill holl:	Not Reported	Drill soni:	Not Reported
Drill othe:	Not Reported	Use domest:	Not Reported
Use irriga:	Not Reported	Use commun:	Not Reported
Use indust:	Not Reported	Use livest:	Not Reported
Use dewate:	Not Reported	Use monito:	Not Reported
Use therma:	Not Reported	Use inject:	Not Reported
Use piezom:	Not Reported	Use observ:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Use recove:	Not Reported	Use other:	Not Reported
Bentonite :	Not Reported	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	71451	Bonded lic:	688
Unbonded l:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	300	Township:	2
Township c:	S	Range:	1
Range char:	E	Sctn:	27
Qtr40:	NE	Qtr160:	SE
Latitude d:	45.36516000	Longitude :	-122.66160000
Gps horizo:	Not Reported	Year const:	2005
Date const:	Not Reported	Date con00:	Not Reported
Deficienci:	U	Previous i:	1
Inspected :	J J	Inspecte00:	113341
Wm region:	NW		
Well tag a:	BANDED TO CASING		
Well tag01:	Not Reported	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	Not Reported	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SS
Pictures t:	0	Street of :	22110 S WISTERIA
Street o00:	22110 WISTERIA RD, WEST LINN		
Last updt :	2005-12-08 12:52:22.000		
Last upd00:	jefferjw	Rec creati:	2009-06-01 06:51:00.000
Rec crea00:	OWRD\migrate		
Latitude:	45.36516		
Loongitude:	-122.6616		
Site id:	ORI500000039759		

**D11
NW
1/2 - 1 Mile
Lower**

OR WELLS ORI500000037981

Fid:	37980	Well inspe:	0
Physical l:	Not Reported	Inspection:	2005-03-02 00:00:00.000
Startcard :	171833	WI county :	CLAC
WI nbr:	60821	Startcar00:	Not Reported
Well tag n:	Not Reported	No log:	Not Reported
Property o:	Not Reported	Inspecti00:	Not Reported
Special st:	0	Title:	Not Reported
Inspecti01:	Not Reported	Witnesses:	Not Reported
Name owner:	MARTIN CLARK CONSTRUCTION INC.		
Street:	Not Reported	City:	Not Reported
State:	Not Reported	Zip:	Not Reported
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	Not Reported	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	Not Reported
Rough log :	Not Reported	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	Not Reported
Protective:	Not Reported	Well locke:	Not Reported
Consultant:	Not Reported	Water in v:	Not Reported
Seal test :	Not Reported	Samples ta:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Casing dia:	Not Reported	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	Not Reported
Dedicated :	Not Reported	Access por:	Not Reported
Access p00:	Not Reported	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	Not Reported	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	Not Reported
Drill ro00:	Not Reported	Drill cabl:	Not Reported
Drill ca00:	Not Reported	Drill reve:	Not Reported
Drill re00:	Not Reported	Drill auge:	Not Reported
Drill push:	Not Reported	Drill hand:	Not Reported
Drill holl:	Not Reported	Drill soni:	Not Reported
Drill othe:	Not Reported	Use domest:	Not Reported
Use irriga:	Not Reported	Use comun:	Not Reported
Use indust:	Not Reported	Use livest:	Not Reported
Use dewate:	Not Reported	Use monito:	Not Reported
Use therma:	Not Reported	Use inject:	Not Reported
Use piezom:	Not Reported	Use observ:	Not Reported
Use recove:	Not Reported	Use other:	Not Reported
Bentonite :	Not Reported	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	71451	Bonded lic:	688
Unbonded l:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	300	Township:	2
Township c:	S	Range:	1
Range char:	E	Sctn:	27
Qtr40:	NE	Qtr160:	SE
Latitude d:	45.36561000	Longitude :	-122.66158000
Gps horizo:	15.30000000	Year const:	2005
Date const:	Not Reported	Date con00:	Not Reported
Deficienci:	U	Previous i:	0
Inspected :	KAW	Inspecte00:	114307
Wm region:	NW		
Well tag a:	HOSE CLAMP		
Well tag01:	Not Reported	Depth:	Not Reported
Static wat:	319.25	Status of :	CMP
Location r:	Not Reported	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SS
Pictures t:	0	Street of :	22110 S WISTERIA
Street o00:	22110 WISTERIA RD, WEST LINN		
Last updt :	2005-03-31 13:20:08.000		
Last upd00:	wilckeka	Rec creati:	2009-06-01 06:51:00.000
Rec crea00:	OWRD\migrate		
Latitude:	45.36561		
Loongitude:	-122.66158		
Site id:	ORI500000037981		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

E12
North
1/2 - 1 Mile
Higher

OR WELLS ORI500000052991

Fid:	52990	Well inspe:	0
Physical l:	Not Reported	Inspection:	2013-03-25 00:00:00.000
Startcard :	209286	WI county :	Not Reported
WI nbr:	Not Reported	Startcar00:	Not Reported
Well tag n:	11085	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	DELAHUNT HOMES		
Street:	PO BO	City:	PORTL
State:	OR	Zip:	97208
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	0
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0
Casing dia:	6.00	Csg above :	1.94
Csg gauge:	0.250	Borehole d:	Not Reported
Dedicated :	0	Access por:	0
Access p00:	Not Reported	Measuring :	1.94
Measurin00:	1	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	0	Pump type:	NON
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	1
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	Not Reported	Bonded lic:	1592
Unbonded l:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	104	Township:	2
Township c:	S	Range:	1
Range char:	E	Sctn:	26
Qtr40:	SE	Qtr160:	NW
Latitude d:	45.37016000	Longitude :	-122.65152000
Gps horizo:	Not Reported	Year const:	Not Reported
Date const:	2013-	Date con00:	Not Reported
Deficienci:	U	Previous i:	0
Inspected :	Not Reported	Inspecte00:	118099
Wm region:	NW		
Well tag a:	Steel Band		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	Not Reported	Site visit:	Not Reported
Type of lo:	W	Casing cap:	WLP
Pictures t:	0	Street of :	Not Reported
Street o00:	Not Reported		
Last updt :	2014-01-09 09:11:57.160		
Last upd00:	plahnjm	Rec creati:	2013-03-27 08:54:02.623
Rec crea00:	plahnjm		
Latitude:	45.37016		
Loongitude:	-122.65152		
Site id:	ORI500000052991		

**E13
North
1/2 - 1 Mile
Higher**

OR WELLS ORI500000053335

Fid:	53334	Well inspe:	0
Physical l:	Not Reported	Inspection:	2013-06-04 00:00:00.000
Startcard :	209286	WI county :	CLAC
WI nbr:	69617	Startcar00:	Not Reported
Well tag n:	11085	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WMR
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	DELAHUNT HOMES		
Street:	1152	City:	WEST
State:	OR	Zip:	97068
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	0
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Casing dia:	6.00	Csg above :	1.90
Csg gauge:	Not Reported	Borehole d:	10.00
Dedicated :	0	Access por:	0
Access p00:	Not Reported	Measuring :	1.90
Measurin00:	0	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	1
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	1
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	110857	Bonded lic:	1592
Unbonded l:	Not Reported	Bonded dri:	STEVE
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	Not Reported	Township:	2
Township c:	S	Range:	1
Range char:	E	Sctn:	26
Qtr40:	SE	Qtr160:	NW
Latitude d:	45.37016000	Longitude :	-122.65154000
Gps horizo:	Not Reported	Year const:	Not Reported
Date const:	2013-	Date con00:	2013-
Deficienci:	U	Previous i:	1
Inspected :	Not Reported	Inspecte00:	122818
Wm region:	NW		
Well tag a:	Band	Depth:	Not Reported
Well tag01:	DRL	Status of :	CMP
Static wat:	Not Reported	Site visit:	Not Reported
Location r:	Not Reported	Casing cap:	PTL
Type of lo:	W	Street of :	1152 S ROSEMONT
Pictures t:	0		
Street o00:	Not Reported		
Last updt :	2013-06-06 08:38:05.180	Rec creati:	2013-06-06 08:36:05.323
Last upd00:	constajw		
Rec crea00:	constajw		
Latitude:	45.37016		
Loongitude:	-122.65154		
Site id:	ORI500000053335		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

14
East
1/2 - 1 Mile
Lower

OR WELLS ORI500000053334

Fid:	53333	Well inspe:	0
Physical I:	Not Reported	Inspection:	2013-06-04 00:00:00.000
Startcard :	208221	WI county :	CLAC
WI nbr:	69447	Startcar00:	Not Reported
Well tag n:	11085	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WMR
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	PACIFIC LIFESTYLE HOMES		
Street:	11875	City:	VANCO
State:	WA	Zip:	98682
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	0	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	0
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0
Casing dia:	6.00	Csg above :	1.50
Csg gauge:	Not Reported	Borehole d:	10.00
Dedicated :	0	Access por:	0
Access p00:	Not Reported	Measuring :	1.50
Measurin00:	0	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	1
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	1
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	110853	Bonded lic:	1592
Unbonded l:	Not Reported	Bonded dri:	STEVE
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	Not Reported	Township:	2
Township c:	S	Range:	1
Range char:	E	Sctn:	36
Qtr40:	NE	Qtr160:	NW
Latitude d:	45.35828000	Longitude :	-122.63359000
Gps horizo:	Not Reported	Year const:	Not Reported
Date const:	2013-	Date con00:	2013-
Deficienci:	U	Previous i:	0
Inspected :	Not Reported	Inspecte00:	122818
Wm region:	NW		
Well tag a:	Band	Depth:	Not Reported
Well tag01:	DRL	Status of :	CMP
Static wat:	Not Reported	Site visit:	Not Reported
Location r:	Not Reported	Casing cap:	PTL
Type of lo:	W	Street of :	4197 REED ST, WE
Pictures t:	0		
Street o00:	Not Reported		
Last updt :	2013-06-06 08:33:01.807	Rec creati:	2013-06-06 08:31:59.127
Last upd00:	constajw		
Rec crea00:	constajw		
Latitude:	45.35828		
Loongitude:	-122.63359		
Site id:	ORI500000053334		

**15
North
1/2 - 1 Mile
Higher**

OR WELLS ORW500000007760

Fid:	7759	Objectid:	7866
Logid:	CLAC 53765	Lstupdate:	12/23/2005
Establbly:	SABRINA WHITE	Xysource:	APPL MAP
Horizerr:	250	Sourceorg:	OWRD
Sourceowrd:	GWATER	Waypoint:	Not Reported
Welltag:	25565		
Sownum:	0	Obswell:	9
Recwell:	9	Obsflagall:	Not Reported
Lsdelev:	0		
Latitude:	45.3719452903		
Longitude:	-122.653996921		
Site id:	ORW500000007760		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: OR Radon

Radon Test Results

Zipcode	Num Tests	Maximum	Minimum	Average	# > 4 pCi/L
97068	30	25.5	0.1	4.5	11

Federal EPA Radon Zone for CLACKAMAS County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level \geq 2 pCi/L and \leq 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data

Source: Oregon Geospatial Enterprise Office

Telephone: 503-378-2166

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data

Source: Department of Water Resources

Telephone: 503-986-0843

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Locations

Source: Department of Geology and Mineral Industries

Telephone: 971-673-1540

A listing of oil and gas well locations in the state.

RADON

State Database: OR Radon

Source: Oregon Health Services

Telephone: 503-731-4272

Radon Levels in Oregon

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

EXHIBIT C-2: GENERAL PUBLIC RECORDS

Not Applicable to This Report

APPENDIX D: CLIENT PROVIDED DOCUMENTATION

Not Applicable to This Document

APPENDIX E: LABORATORY REPORTS

Not Applicable to This Document

APPENDIX F: OTHER SUPPORTING DOCUMENTATION

Not Applicable to This Document

APPENDIX G: QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Rodolfo Gómez
Staff Engineer

Education: Mechanical and Electrical Engineering Degree, University of Veracruz, Xalapa, Mexico 1990

Relevant Training/Licensing: 2012-13 AHERA Asbestos Building Inspector
2010 State of Oregon Lead Risk Assessor
2010 State of Oregon Licensed Well Driller Trainee

Years of Experience: 15

Summary of Experience

Mr. Gomez has seven years of experience as an environmental professional with Alpha. He also possesses an extensive professional background as an engineer that includes training and experiencing in health and safety as well as environmental issues.

Mr. Gomez performs Phase I Environmental Site Assessments, asbestos and lead surveys, hazardous material identification and reporting, and storm water and drywell monitoring of commercial and residential properties. Mr. Gomez has also been involved in management and oversight of underground storage tank cleanup and decommissioning; installation of new aboveground storage tanks; and installation of vapor mitigation systems for Alpha. In addition, Mr. Gomez is licensed as a Lead Based Paint Risk Assessor with the State of Oregon, and as an AHERA Asbestos Building Inspector.

Prior to working with Alpha, Mr. Gomez was previously a Project Coordinator in the ship repair business for J. Ray McDermott, an international manufacturing and repair company, in large scale ship repair, ship conversion and off shore platform module fabrication. Mr. Gomez is currently a member of the Project Management Institute (PMI) and is up to date with the PMI Project Management practices

Mr. Gomez has also extensive managerial experience in the industrial field working for Vallourec Mannesmann Oil & Gas, a French-German seamless steel pipe production company, where he occupied positions as Buyer, Quality Superintendent and Chief of Methods (Engineering) Department in the company's Veracruz Pipe Threading Plant.

Areas of professional expertise also include Quality Assurance/Quality Control (ISO 9000 2000 & ISO 14000 Standards); Total Quality Management strategies implementation; Strategic Planning; Industrial Safety; Testing of Materials and Technical Documents translation Spanish-English-Spanish.



Real-World Geotechnical Solutions
Investigation • Design • Construction Support

November 9, 2018
Project No. 18-5056

Eric Evans
Emerio Design
6445 SW Fallbrook Place, Suite 100
Beaverton, Oregon 97008
Via email: eric@emeriodesign.com

SUBJECT: GEOTECHNICAL REPORT
WEATHERHILL ROAD SUBDIVISION
22870 WEATHERHILL ROAD
WEST LINN, OREGON

This report presents the results of a geotechnical engineering study conducted by GeoPacific Engineering, Inc. (GeoPacific) for the above-referenced project. The purpose of our investigation was to evaluate subsurface conditions at the site and to provide geotechnical recommendations for site development. This geotechnical study was performed in accordance with GeoPacific Proposal No. P-6734, dated October 2, 2018, and your subsequent authorization of our proposal and *General Conditions for Geotechnical Services*.

SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The subject site is located on the south side of Weatherhill Road in West Linn, Clackamas County, Oregon (Figure 1). The property is approximately 2.6 acres in size and topography is gently to moderately sloping to the south at grades of approximately 5 to 30 percent. The site is currently occupied by one home and one outbuilding. Vegetation consists primarily of short grasses and dense to sparse trees.

It is our understanding that proposed development includes 13 lots for single family homes, construction of approximately 350 lineal feet of new streets, and associated underground utilities (Figure 2). The existing structures will be removed. A grading plan has not been provided for our review; however, we anticipate maximum cuts and fills will be on the order of 15 feet or less and may incorporate retaining walls.

REGIONAL AND LOCAL GEOLOGIC SETTING

The subject site lies within the Willamette Valley/Puget Sound lowland, a broad structural depression situated between the Coast Range on the west and the Cascade Range on the east. A series of discontinuous faults subdivide the Willamette Valley into a mosaic of fault-bounded, structural blocks (Yeats et al., 1996). Uplifted structural blocks form bedrock highlands, while down-warped structural blocks form sedimentary basins.

The site is located on a south facing slope at elevations of approximately 575 to 635 feet above sea level. The subject site is underlain by the Miocene aged (about 14.5 to 16.5 million years ago) Columbia River Basalt Formation, which are a thick sequence of lava flows which form the crystalline basement of the Tualatin Valley (Beeson et al., 1989; Gannett and Caldwell, 1998). The basalts are composed of dense, finely crystalline rock that is commonly fractured along blocky and columnar vertical joints. Individual basalt flow units typically range from 25 to 125 feet thick and interflow zones are typically vesicular, scoriaceous, brecciated, and sometimes include sedimentary rocks.

REGIONAL SEISMIC SETTING

At least three major fault zones capable of generating damaging earthquakes are thought to exist in the vicinity of the subject site. These include the Portland Hills Fault Zone, the Gales Creek-Newberg-Mt. Angel Structural Zone, and the Cascadia Subduction Zone.

Portland Hills Fault Zone

The Portland Hills Fault Zone is a series of NW-trending faults that include the central Portland Hills Fault, the western Oatfield Fault, and the eastern East Bank Fault. These faults occur in a northwest-trending zone that varies in width between 3.5 and 5.0 miles. The combined three faults vertically displace the Columbia River Basalt by 1,130 feet and appear to control thickness changes in late Pleistocene (approx. 780,000 years) sediment (Madin, 1990). The Portland Hills Fault occurs along the Willamette River at the base of the Portland Hills, and is about 4.4 miles northeast of the site. The East Bank Fault is oriented roughly parallel to the Portland Hills Fault, on the east bank of the Willamette River, and is located approximately 8.6 miles northwest of the site. The Oatfield Fault occurs along the western side of the Portland Hills, and is about 3.6 miles northeast of the site. The Oatfield Fault is considered to be potentially seismogenic (Wong, et al., 2000). Madin and Mabey (1996) indicate the Portland Hills Fault Zone has experienced Late Quaternary (last 780,000 years) fault movement; however, movement has not been detected in the last 20,000 years. The accuracy of the fault mapping is stated to be within 500 meters (Wong, et al., 2000). No historical seismicity is correlated with the mapped portion of the Portland Hills Fault Zone, but in 1991 a M3.5 earthquake occurred on a NW-trending shear plane located 1.3 miles east of the fault (Yelin, 1992). Although there is no definitive evidence of recent activity, the Portland Hills Fault Zone is assumed to be potentially active (Geomatrix Consultants, 1995).

Gales Creek-Newberg-Mt. Angel Structural Zone

The Gales Creek-Newberg-Mt. Angel Structural Zone is a 50-mile-long zone of discontinuous, NW-trending faults that lies about 15.8 miles southwest of the subject site. These faults are recognized in the subsurface by vertical separation of the Columbia River Basalt and offset seismic reflectors in the overlying basin sediment (Yeats et al., 1996; Werner et al., 1992). A geologic reconnaissance and photogeologic analysis study conducted for the Scoggins Dam site in the Tualatin Basin revealed no evidence of deformed geomorphic surfaces along the structural zone (Unruh et al., 1994). No seismicity has been recorded on the Gales Creek Fault or Newberg Fault (the fault closest to the subject site); however, these faults are considered to be potentially active because they may connect with the seismically active Mount Angel Fault and the rupture plane of the 1993 M5.6 Scotts Mills earthquake (Werner et al. 1992; Geomatrix Consultants, 1995).

Cascadia Subduction Zone

The Cascadia Subduction Zone is a 680-mile-long zone of active tectonic convergence where oceanic crust of the Juan de Fuca Plate is subducting beneath the North American continent at a rate of 4 cm per year (Goldfinger et al., 1996). A growing body of geologic evidence suggests that prehistoric subduction zone earthquakes have occurred (Atwater, 1992; Carver, 1992; Peterson et al., 1993; Geomatrix Consultants, 1995). This evidence includes: (1) buried tidal marshes recording episodic, sudden subsidence along the coast of northern California, Oregon, and Washington, (2) burial of subsided tidal marshes by tsunami wave deposits, (3) paleoliquefaction features, and (4) geodetic uplift patterns on the Oregon coast. Radiocarbon dates on buried tidal marshes indicate a recurrence interval for major subduction zone earthquakes of 250 to 650 years with the last event occurring 300 years ago (Atwater, 1992; Carver, 1992; Peterson et al., 1993; Geomatrix Consultants, 1995). The inferred seismogenic portion of the plate interface lies roughly along the Oregon coast at depths of between 20 and 40 miles.

SUBSURFACE CONDITIONS

Our site-specific exploration for this report was conducted on October 17, 2018. A total of 3 exploratory test pits were excavated with a backhoe to depths of 2.75 to 5 feet at the approximate locations indicated on Figure 2. It should be noted that test pit locations were located in the field by pacing or taping distances from apparent property corners and other site features shown on the plans provided. As such, the locations of the explorations should be considered approximate.

A GeoPacific Engineering Geologist continuously monitored the field exploration program and logged the test pits. Soils observed in the explorations were classified in general accordance with the Unified Soil Classification System (USCS). Rock hardness was classified in accordance with Table 1, modified from the ODOT Rock Hardness Classification Chart. During exploration, our geologist also noted geotechnical conditions such as soil consistency, moisture and groundwater conditions. Logs of test pits are attached to this report. The following report sections are based on the exploration program and summarize subsurface conditions encountered at the site.

Table 1. Rock Hardness Classification Chart

ODOT Rock Hardness Rating	Field Criteria	Unconfined Compressive Strength	Typical Equipment Needed For Excavation
Extremely Soft (R0)	Indented by thumbnail	<100 psi	Small excavator
Very Soft (R1)	Scratched by thumbnail, crumbled by rock hammer	100-1,000 psi	Small excavator
Soft (R2)	Not scratched by thumbnail, indented by rock hammer	1,000-4,000 psi	Medium excavator (slow digging with small excavator)
Medium Hard (R3)	Scratched or fractured by rock hammer	4,000-8,000 psi	Medium to large excavator (slow to very slow digging), typically requires chipping with hydraulic hammer or mass excavation)
Hard (R4)	Scratched or fractured w/ difficulty	8,000-16,000 psi	Slow chipping with hydraulic hammer and/or blasting
Very Hard (R5)	Not scratched or fractured after many blows, hammer rebounds	>16,000 psi	Blasting

Undocumented Fill: Undocumented fill was not encountered in our explorations. Our reconnaissance indicates that approximately 3 feet of undocumented fill may be present in the vicinity of the existing driveway and up to 10 feet of fill may be present to the south of the existing house and in the vicinity of the existing barn, as delineated on Figure 2. Explorations were not conducted in these areas due to access restraints. We anticipate other areas of fill may be present in the vicinity of the existing home and adjacent to Weatherhill Road.

Topsoil Horizon: Directly underlying the ground surface in test pits TP-1 through TP-3 was a topsoil horizon consisting of light brown, low to moderately organic silt (OL-ML). The topsoil horizon was generally loose, contained many fine roots, and extended to a depth of 9 to 12 inches.

Residual Soil: Underlying the topsoil horizon in test pits TP-1 through TP-3 was clayey silt (ML) to silty clay (CL) residual soil resulting from in-place weathering of the underlying Columbia River Basalt Formation. The light reddish brown silty clay to clayey silt contained trace weathered basalt fragments and was generally characterized by a very stiff consistency. In test pits, the residual soil extended to a depth of 2 to 4 feet.

Columbia River Basalt Formation: Underlying the residual soil in test pits TP-1 through TP-3 was weathered basalt belonging to the Columbia River Basalt Formation. Generally, the gray basalt was extremely soft (R0) to soft (R2) with trace light reddish brown silty clay to clayey silt matrix. Practical refusal was encountered on medium hard (R3) basalt at a depth of 2.75 to 5

feet in explorations all explorations. A larger machine would likely be able to excavate deeper depths. Table 2 presents the depths at which rock was first encountered in test pits and the depth at which practical refusal was achieved with a medium sized backhoe equipped with rock teeth.

Table 2. Depth of Basalt Bedrock Encountered in Explorations

Test Pit	Depth Rock First Encountered (feet)	Depth of Practical Refusal on Medium Hard (R3) Basalt (feet)
TP-1	2	3
TP-2	4	5
TP-3	2	2.75

Soil Moisture and Groundwater

On October 17, 2018, neither static groundwater nor groundwater seepage was encountered in test pits excavated to a maximum depth of 5 feet below the ground surface. Regional groundwater mapping indicates that static groundwater is present at a depth of approximately 260 to 280 feet below the ground surface (Snyder, 2008). Experience has shown that temporary storm related perched groundwater within the near surface soils often occur over fine-grained native deposits such as those beneath the site during the wet season and particularly in mottled soils such as were identified in the test pits. It is anticipated that groundwater conditions will vary depending on the season, local subsurface conditions, changes in site utilization, and other factors.

INFILTRATION TESTING

Infiltration testing was not performed due to encountering basalt bedrock. GeoPacific does not recommend infiltrating into bedrock due to limited storage volume.

CONCLUSIONS AND RECOMMENDATIONS

Our investigation indicates that the proposed development is geotechnically feasible, provided that the recommendations of this report are incorporated into the design and sufficient geotechnical monitoring is incorporated into the construction phases of the project. In our opinion, the greatest geotechnical issue for project completion is the depth of the bedrock beneath the site. Weathered basalt bedrock was encountered throughout the site and basalt was first encountered at depths of 2 to 4 feet. Practical refusal was encountered on medium hard (R3) basalt at depths of 2.75 to 5 feet. A larger excavator may be able to achieve greater depths; however, difficult excavating conditions should be expected.

Site Preparation

Areas of proposed buildings, new streets, and areas to receive fill should be cleared of vegetation and any organic and inorganic debris. Existing buried structures, should be demolished and any cavities structurally backfilled. Inorganic debris and organic materials from clearing should be removed from the site. Existing fill and any organic-rich topsoil should then be stripped from construction areas of the site or where engineered fill is to be placed. Fill was not encountered in our explorations; however, our reconnaissance indicates that fill is likely present in the vicinity of the existing home, driveway, and barn and potentially along Weatherhill Road.

Organic-rich topsoil should then be stripped from native soil areas of the site. The estimated depth range necessary for removal of topsoil in cut and fill areas is approximately 6 to 9 inches, respectively. The final depth of soil removal will be determined on the basis of a site inspection after the stripping/excavation has been performed. Stripped topsoil should preferably be removed from the site due to the high density of the proposed development. Any remaining topsoil should be stockpiled only in designated areas and stripping operations should be observed and documented by the geotechnical engineer or his representative.

Any remaining undocumented fills and subsurface structures (tile drains, basements, driveway and landscaping fill, old utility lines, septic leach fields, etc.) should be removed and the excavations backfilled with engineered fill.

Once stripping of a particular area is approved, the area must be ripped or tilled to a depth of 12 inches, moisture conditioned, root-picked, and compacted in-place prior to the placement of engineered fill or crushed aggregate base for pavement. Exposed subgrade soils should be evaluated by the geotechnical engineer. For large areas, this evaluation is normally performed by proof-rolling the exposed subgrade with a fully loaded scraper or dump truck. For smaller areas where access is restricted, the subgrade should be evaluated by probing the soil with a steel probe. Soft/loose soils identified during subgrade preparation should be compacted to a firm and unyielding condition, over-excavated and replaced with engineered fill (as described below), or stabilized with rock prior to placement of engineered fill. The depth of overexcavation, if required, should be evaluated by the geotechnical engineer at the time of construction.

Engineered Fill

All grading for the proposed development should be performed as engineered grading in accordance with the applicable building code at time of construction with the exceptions and additions noted herein. Proper test frequency and earthwork documentation usually requires daily observation and testing during stripping, rough grading, and placement of engineered fill. Imported fill material must be approved by the geotechnical engineer prior to being imported to the site. Oversize material greater than 6 inches in size should not be used within 3 feet of foundation footings, and material greater than 12 inches in diameter should not be used in engineered fill.

Engineered fill should be compacted in horizontal lifts not exceeding 8 inches using standard compaction equipment. We recommend that engineered fill be compacted to at least 95% of the maximum dry density determined by ASTM D698 (Standard Proctor) or equivalent. Field density testing should conform to ASTM D2922 and D3017, or D1556. All engineered fill should be observed and tested by the project geotechnical engineer or his representative. Typically,

one density test is performed for at least every 2 vertical feet of fill placed or every 500 yd³, whichever requires more testing. Because testing is performed on an on-call basis, we recommend that the earthwork contractor be held contractually responsible for test scheduling and frequency.

Site earthwork will be impacted by soil moisture and shallow groundwater conditions. Earthwork in wet weather would likely require extensive use of cement or lime treatment, or other special measures, at a considerable additional cost compared to earthwork performed under dry-weather conditions.

Keyways and Benching For Engineered Fill on Slopes

Engineered fill to be placed in sloping areas inclining steeper than 20% grade should be constructed on a keyway and benches in accordance with the typical design shown in Figure 3. Keyways should have a minimum depth of 2 feet and minimum width of 10 feet. Additional removals of potentially unstable soils may be required depending on conditions observed during construction. Both benches and keyways should be roughly horizontal in the down slope direction, but may slope up to 20% grade along topographic contour. Keyways sloping more than 20% grade along topographic contour should be benched.

The keyway should include a subdrain consisting of a minimum 3-inch diameter, ADS Heavy Duty grade (or equivalent), perforated plastic pipe enveloped in a minimum of 3 cubic feet per lineal foot of 2"-1/2", open-graded gravel drain rock wrapped with geotextile filter fabric (Mirafi 140N or equivalent). GeoPacific should inspect keyways, subdrains and benching prior to fill placement. Areas of potential seepage observed during construction may require a rock blanket drain in the keyway bottom.

We recommend that permanent fill and cut slopes be constructed no steeper than 2H:1V (50% grade). Fill slopes should be overbuilt a minimum of 3 feet horizontally beyond finish grade and then trimmed back to finish grade as shown on Figure 3 in order to achieve a well compacted slope face.

Excavating Conditions and Utility Trenches

We anticipate that on-site soils can be excavated using conventional heavy equipment such as scrapers and trackhoes. Weathered basalt bedrock was encountered in test pits throughout the site at depths of 2 to 4 feet and practical refusal was encountered on medium hard (R3) basalt at depths of 2.75 to 5 feet. A larger excavator may be able to achieve greater depths.

All temporary cuts in excess of 4 feet in height should be sloped in accordance with U.S. Occupational Safety and Health Administration (OSHA) regulations (29 CFR Part 1926), or be shored. The existing native soil is classified as Type B Soil and temporary excavation side slope inclinations as steep as 1H:1V may be assumed for planning purposes. This cut slope inclination is applicable to excavations above groundwater seepage zones only. Maintenance of safe working conditions, including temporary excavation stability, is the responsibility of the contractor. Actual slope inclinations at the time of construction should be determined based on safety requirements and actual soil and groundwater conditions.

Saturated soils and groundwater may be encountered in utility trenches, particularly during the wet season. We anticipate that dewatering systems consisting of ditches, sumps and pumps would be adequate for control of perched groundwater. Regardless of the dewatering system

used, it should be installed and operated such that in-place soils are prevented from being removed along with the groundwater.

Vibrations created by traffic and construction equipment may cause some caving and raveling of excavation walls. In such an event, lateral support for the excavation walls should be provided by the contractor to prevent loss of ground support and possible distress to existing or previously constructed structural improvements.

PVC pipe should be installed in accordance with the procedures specified in ASTM D2321. We recommend that trench backfill be compacted to at least 95% of the maximum dry density obtained by Modified Proctor ASTM D1557 or equivalent. Initial backfill lift thickness for a ¾"-0 crushed aggregate base may need to be as great as 4 feet to reduce the risk of flattening underlying flexible pipe. Subsequent lift thickness should not exceed 1 foot. If imported granular fill material is used, then the lifts for large vibrating plate-compaction equipment (e.g. hoe compactor attachments) may be up to 2 feet, provided that proper compaction is being achieved and each lift is tested. Use of large vibrating compaction equipment should be carefully monitored near existing structures and improvements due to the potential for vibration-induced damage.

Adequate density testing should be performed during construction to verify that the recommended relative compaction is achieved. Typically, one density test is taken for every 4 vertical feet of backfill on each 200-lineal-foot section of trench.

Erosion Control Considerations

During our field exploration program, we did not observe soil types that would be considered highly susceptible to erosion except in areas of moderately sloping topography. In our opinion, the primary concern regarding erosion potential will occur during construction, in areas that have been stripped of vegetation. Erosion at the site during construction can be minimized by implementing the project erosion control plan, which should include judicious use of straw wattles and silt fences. If used, these erosion control devices should be in place and remain in place throughout site preparation and construction.

Erosion and sedimentation of exposed soils can also be minimized by quickly re-vegetating exposed areas of soil, and by staging construction such that large areas of the project site are not denuded and exposed at the same time. Areas of exposed soil requiring immediate and/or temporary protection against exposure should be covered with either mulch or erosion control netting/blankets. Areas of exposed soil requiring permanent stabilization should be seeded with an approved grass seed mixture, or hydroseeded with an approved seed-mulch-fertilizer mixture.

Wet Weather Earthwork

Soils underlying the site are likely to be moisture sensitive and may be difficult to handle or traverse with construction equipment during periods of wet weather. Earthwork is typically most economical when performed under dry weather conditions. Earthwork performed during the wet-weather season will probably require expensive measures such as cement treatment or imported granular material to compact fill to the recommended engineering specifications. If earthwork is to be performed or fill is to be placed in wet weather or under wet conditions when soil moisture content is difficult to control, the following recommendations should be incorporated into the contract specifications:

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soils should be followed promptly by the placement and compaction of clean engineered fill. The size and type of construction equipment used may have to be limited to prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic;
- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water;
- Material used as engineered fill should consist of clean, granular soil containing less than 5 percent fines. The fines should be non-plastic. Alternatively, cement treatment of on-site soils may be performed to facilitate wet weather placement;
- The ground surface within the construction area should be sealed by a smooth drum vibratory roller, or equivalent, and under no circumstances should be left uncompacted and exposed to moisture. Soils which become too wet for compaction should be removed and replaced with clean granular materials;
- Excavation and placement of fill should be observed by the geotechnical engineer to verify that all unsuitable materials are removed and suitable compaction and site drainage is achieved; and
- Geotextile silt fences, straw wattles, and fiber rolls should be strategically located to control erosion.

If cement or lime treatment is used to facilitate wet weather construction, GeoPacific should be contacted to provide additional recommendations and field monitoring.

Pavement Design

For design purposes, we used an estimated resilient modulus of 9,000 for compacted native soil. Table 3 presents our recommended minimum pavement section for dry weather construction.

Table 3. Recommended Minimum Dry-Weather Pavement Section

Material Layer	Light-duty Public Streets	Private Driveways	Compaction Standard
Asphaltic Concrete (AC)	3 in.	2.5 in.	92% of Rice Density AASHTO T-209
Crushed Aggregate Base ¾"-0 (leveling course)	2 in.	2 in.	95% of Modified Proctor AASHTO T-180
Crushed Aggregate Base 1½"-0	8 in.	6 in.	95% of Modified Proctor AASHTO T-180
Subgrade	12 in.	12 in.	95% of Standard Proctor AASHTO T-99 or equivalent

Any pockets of organic debris or loose fill encountered during ripping or tilling should be removed and replaced with engineered fill (see *Site Preparation* Section). In order to verify subgrade strength, we recommend proof-rolling directly on subgrade with a loaded dump truck

during dry weather and on top of base course in wet weather. Soft areas that pump, rut, or weave should be stabilized prior to paving. If pavement areas are to be constructed during wet weather, the subgrade and construction plan should be reviewed by the project geotechnical engineer at the time of construction so that condition-specific recommendations can be provided. The moisture sensitive subgrade soils make the site a difficult wet weather construction project.

During placement of pavement section materials, density testing should be performed to verify compliance with project specifications. Generally, one subgrade, one base course, and one asphalt compaction test is performed for every 100 to 200 linear feet of paving.

Spread Foundations

The proposed residential structures may be supported on shallow foundations bearing on competent undisturbed, native soils and/or engineered fill, appropriately designed and constructed as recommended in this report. Foundation design, construction, and setback requirements should conform to the applicable building code at the time of construction. For maximization of bearing strength and protection against frost heave, spread footings should be embedded at a minimum depth of 12 inches below exterior grade. The recommended minimum widths for continuous footings supporting wood-framed walls without masonry are 12 inches for single-story, 15 inches for two-story, and 18 inches for three-story structures. Minimum foundation reinforcement should consist of a No. 4 bar at the tops of stem walls, and a No. 4 bar at the bottom of footings. Concrete slab-on-grade reinforcement should consist of No. 4 bars placed on 24-inch centers in a grid pattern.

The anticipated allowable soil bearing pressure is 1,500 lbs/ft² for footings bearing on competent, native soil and/or engineered fill. A maximum chimney and column load of 30 kips is recommended for the site. The recommended maximum allowable bearing pressure may be increased by 1/3 for short-term transient conditions such as wind and seismic loading. For heavier loads, the geotechnical engineer should be consulted. The coefficient of friction between on-site soil and poured-in-place concrete may be taken as 0.40, which includes no factor of safety. The maximum anticipated total and differential footing movements (generally from soil expansion and/or settlement) are 1 inch and ¾ inch over a span of 20 feet, respectively. We anticipate that the majority of the estimated settlement will occur during construction, as loads are applied. Excavations near structural footings should not extend within a 1H:1V plane projected downward from the bottom edge of footings.

Footing excavations should penetrate through topsoil and any loose soil to competent subgrade that is suitable for bearing support. All footing excavations should be trimmed neat, and all loose or softened soil should be removed from the excavation bottom prior to placing reinforcing steel bars. Due to the moisture sensitivity of on-site native soils, foundations constructed during the wet weather season may require overexcavation of footings and backfill with compacted, crushed aggregate.

Our recommendations are for house construction incorporating raised wood floors and conventional spread footing foundations. If living space of the structures will incorporate basements, a geotechnical engineer should be consulted to make additional recommendations for retaining walls, water-proofing, underslab drainage and wall subdrains. After site development, a Final Soil Engineer's Report should either confirm or modify the above recommendations.

Permanent Below-Grade Walls

Lateral earth pressures against below-grade retaining walls will depend upon the inclination of any adjacent slopes, type of backfill, degree of wall restraint, method of backfill placement, degree of backfill compaction, drainage provisions, and magnitude and location of any adjacent surcharge loads. At-rest soil pressure is exerted on a retaining wall when it is restrained against rotation. In contrast, active soil pressure will be exerted on a wall if its top is allowed to rotate or yield a distance of roughly 0.001 times its height or greater.

If the subject retaining walls will be free to rotate at the top, they should be designed for an active earth pressure equivalent to that generated by a fluid weighing 35 pcf for level backfill against the wall. For restrained wall, an at-rest equivalent fluid pressure of 55 pcf should be used in design, again assuming level backfill against the wall. These values assume that drainage provisions are incorporated, free draining gravel backfill is used, and hydrostatic pressures are not allowed to develop against the wall.

During a seismic event, lateral earth pressures acting on below-grade structural walls will increase by an incremental amount that corresponds to the earthquake loading. Based on the Mononobe-Okabe equation and peak horizontal accelerations appropriate for the site location, seismic loading should be modeled using the active or at-rest earth pressures recommended above, plus an incremental rectangular-shaped seismic load of magnitude $6.5H$, where H is the total height of the wall.

We assume relatively level ground surface below the base of the walls. As such, we recommend passive earth pressure of 320 pcf for use in design, assuming wall footings are cast against competent native soils or engineered fill. If the ground surface slopes down and away from the base of any of the walls, a lower passive earth pressure should be used and GeoPacific should be contacted for additional recommendations.

A coefficient of friction of 0.42 may be assumed along the interface between the base of the wall footing and subgrade soils. The recommended coefficient of friction and passive earth pressure values do not include a safety factor, and an appropriate safety factor should be included in design. The upper 12 inches of soil should be neglected in passive pressure computations unless it is protected by pavement or slabs on grade.

The above recommendations for lateral earth pressures assume that the backfill behind the subsurface walls will consist of properly compacted structural fill, and no adjacent surcharge loading. If the walls will be subjected to the influence of surcharge loading within a horizontal distance equal to or less than the height of the wall, the walls should be designed for the additional horizontal pressure. For uniform surcharge pressures, a uniformly distributed lateral pressure of 0.3 times the surcharge pressure should be added. Traffic surcharges may be estimated using an additional vertical load of 250 psf (2 feet of additional fill), in accordance with local practice.

The recommended equivalent fluid densities assume a free-draining condition behind the walls so that hydrostatic pressures do not build-up. This can be accomplished by placing a 12 to 18-inch wide zone of sand and gravel containing less than 5 percent passing the No. 200 sieve against the walls. A 3-inch minimum diameter perforated, plastic drain pipe should be installed at the base of the walls and connected to a suitable discharge point to remove water in this zone of sand and gravel. The drain pipe should be wrapped in filter fabric (Mirafi 140N or other as approved by the geotechnical engineer) to minimize clogging.

Wall drains are recommended to prevent detrimental effects of surface water runoff on foundations – not to dewater groundwater. Drains should not be expected to eliminate all potential sources of water entering a basement or beneath a slab-on-grade. An adequate grade to a low point outlet drain in the crawlspace is required by code. Underslab drains are sometimes added beneath the slab when placed over soils of low permeability and shallow, perched groundwater.

Water collected from the wall drains should be directed into the local storm drain system or other suitable outlet. A minimum 0.5 percent fall should be maintained throughout the drain and non-perforated pipe outlet. Down spouts and roof drains should not be connected to the wall drains in order to reduce the potential for clogging. The drains should include clean-outs to allow periodic maintenance and inspection. Grades around the proposed structure should be sloped such that surface water drains away from the building.

GeoPacific should be contacted during construction to verify subgrade strength in wall keyway excavations, to verify that backslope soils are in accordance with our assumptions, and to take density tests on the wall backfill materials.

Structures should be located a horizontal distance of at least $1.5H$ away from the back of the retaining wall, where H is the total height of the wall. GeoPacific should be contacted for additional foundation recommendations where structures are located closer than $1.5H$ to the top of any wall.

Seismic Design

The Oregon Department of Geology and Mineral Industries (Dogami), Oregon HazVu: 2018 Statewide GeoHazards Viewer indicates that the site is in an area where *very strong* ground shaking is anticipated during an earthquake. Structures should be designed to resist earthquake loading in accordance with the methodology described in the 2015 International Building Code (IBC) with applicable Oregon Structural Specialty Code (OSSC) revisions (current 2014). We recommend Site Class C be used for design per the OSSC, Table 1613.5.2 and as defined in ASCE 7, Chapter 20, Table 20.3-1. Design values determined for the site using the USGS (United States Geological Survey) 2016 Seismic Design Maps Summary Report are summarized in Table 4, presented on the following page, and are based upon existing soil conditions.

Table 4. Recommended Earthquake Ground Motion Parameters (2010 ASCE-7)

Parameter	Value
Location (Lat, Long), degrees	45.359, -122.651
Mapped Spectral Acceleration Values (MCE):	
Peak Ground Acceleration PGA_M	0.413
Short Period, S_s	0.951 g
1.0 Sec Period, S_1	0.409 g
Soil Factors for Site Class D:	
F_a	1.020
F_v	1.391
Residential Site Value = $2/3 \times F_a \times S_s$	0.646 g
Residential Seismic Design Category	C

Soil liquefaction is a phenomenon wherein saturated soil deposits temporarily lose strength and behave as a liquid in response to earthquake shaking. Soil liquefaction is generally limited to loose, granular soils located below the water table. According to the Oregon HazVu: Statewide Geohazards Viewer, the subject site is regionally characterized as having no risk of soil liquefaction (DOGAMI:HazVu, 2018).

Footing and Roof Drains

Construction should include typical measures for controlling subsurface water beneath the homes, including positive crawlspace drainage to an adequate low-point drain exiting the foundation, visqueen covering the exposed ground in the crawlspace, and crawlspace ventilation (foundation vents). The homebuyers should be informed and educated that some slow flowing water in the crawlspaces is considered normal and not necessarily detrimental to the home given these other design elements incorporated into its construction. Appropriate design professionals should be consulted regarding crawlspace ventilation, building material selection and mold prevention issues, which are outside GeoPacific's area of expertise.

Down spouts and roof drains should collect roof water in a system separate from the footing drains to reduce the potential for clogging. Roof drain water should be directed to an appropriate discharge point and storm system well away from structural foundations. Grades should be sloped downward and away from buildings to reduce the potential for ponded water near structures.

If the proposed structures will have a raised floor, and no concrete slab-on-grade floors in living spaces are used, perimeter footing drains would not be required based on soil conditions encountered at the site and experience with standard local construction practices. Where it is desired to reduce the potential for moist crawl spaces, footing drains may be installed. If concrete slab-on-grade floors are used, perimeter footing drains should be installed as recommended below.

Where necessary, perimeter footing drains should consist of 3 or 4-inch diameter, perforated plastic pipe embedded in a minimum of 1 ft³ per lineal foot of clean, free-draining drain rock. The drain pipe and surrounding drain rock should be wrapped in non-woven geotextile (Mirafi 140N, or approved equivalent) to minimize the potential for clogging and/or ground loss due to piping. A minimum 0.5 percent fall should be maintained throughout the drain and non-

22870 Weatherhill Road Subdivision
Project No. 18-5056

perforated pipe outlet. In our opinion, footing drains may outlet at the curb, or on the back sides of lots where sufficient fall is not available to allow drainage to meet the street.

UNCERTAINTIES AND LIMITATIONS

We have prepared this report for the owner and their consultants for use in design of this project only. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however, the conclusions and interpretations presented in this report should not be construed as a warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, GeoPacifc should be notified for review of the recommendations of this report, and revision of such if necessary.

Sufficient geotechnical monitoring, testing and consultation should be provided during construction to confirm that the conditions encountered are consistent with those indicated by explorations. The checklist attached to this report outlines recommended geotechnical observations and testing for the project. Recommendations for design changes will be provided should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, GeoPacifc attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology at the time the report was prepared. No warranty, expressed or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous or toxic substances in the soil, surface water, or groundwater at this site.

We appreciate this opportunity to be of service.

Sincerely,

GEOPACIFIC ENGINEERING, INC.



Beth K. Rapp, C.E.G.
Senior Engineering Geologist



James D. Imbrie, P.E., G.E.
Principal Geotechnical Engineer

Attachments: References
Checklist of Recommended Geotechnical Testing and Observation
Figure 1 – Vicinity Map
Figure 2 – Site and Exploration Plan
Figure 3 – Fill Slope Detail
Test Pit Logs (TP-1 – TP-3)

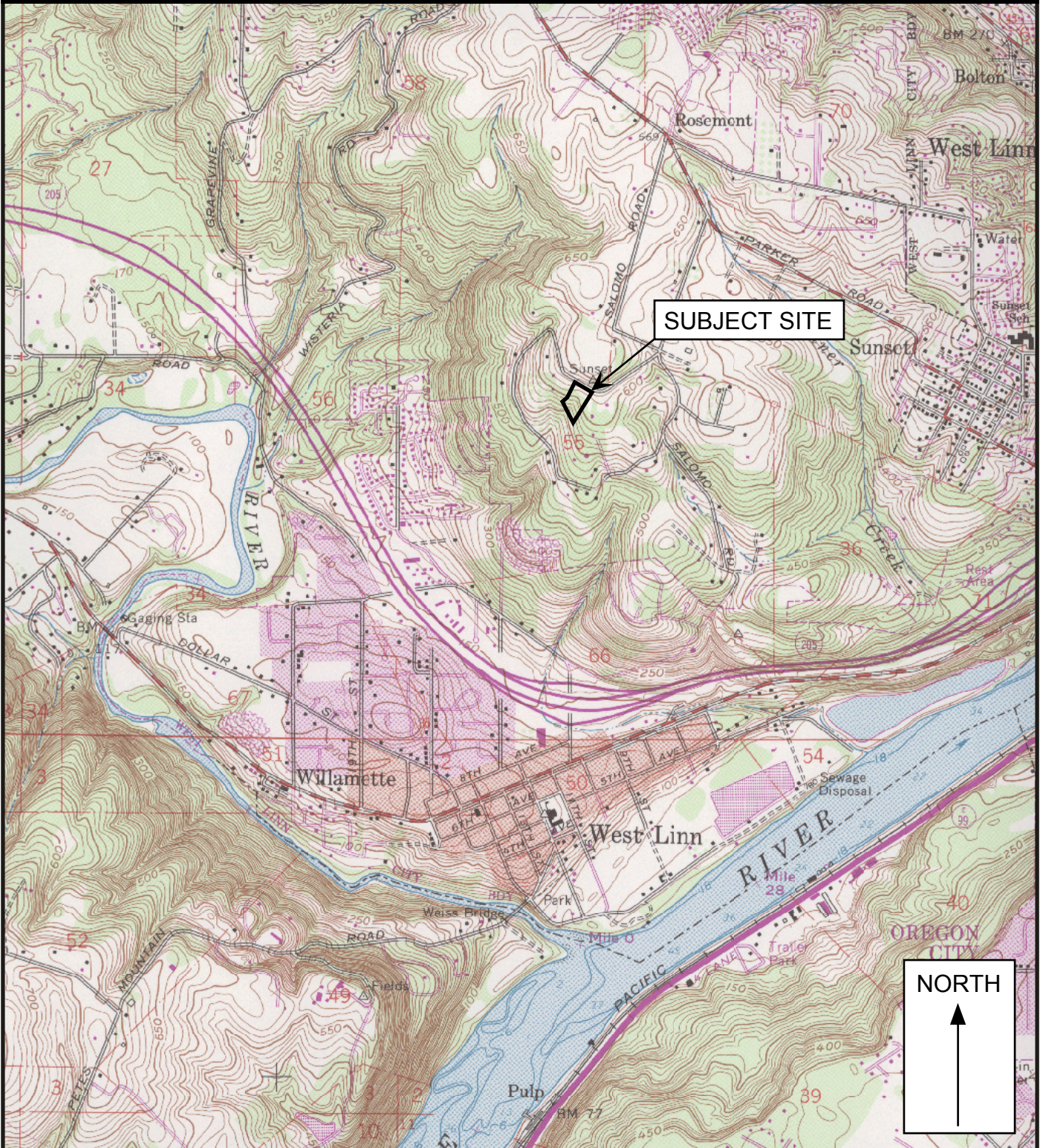
REFERENCES

- Atwater, B.F., 1992, Geologic evidence for earthquakes during the past 2,000 years along the Copalis River, southern coastal Washington: *Journal of Geophysical Research*, v. 97, p. 1901-1919.
- Beeson, M.H., Tolan, T.L., and Madin, I.P., 1989, Geologic map of the Lake Oswego Quadrangle, Clackamas, Multnomah, and Washington Counties, Oregon: Oregon Department of Geology and Mineral Industries Geological Map Series GMS-59, scale 1:24,000.
- Carver, G.A., 1992, Late Cenozoic tectonics of coastal northern California: American Association of Petroleum Geologists-SEPM Field Trip Guidebook, May, 1992.
- Gannett, M.W. and Caldwell, R.R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-A, 32 pages text, 8 plates.
- Geomatrix Consultants, 1995, Seismic Design Mapping, State of Oregon: unpublished report prepared for Oregon Department of Transportation, Personal Services Contract 11688, January 1995.
- Goldfinger, C., Kulm, L.D., Yeats, R.S., Appelgate, B., MacKay, M.E., and Cochrane, G.R., 1996, Active strike-slip faulting and folding of the Cascadia Subduction-Zone plate boundary and forearc in central and northern Oregon: in *Assessing earthquake hazards and reducing risk in the Pacific Northwest*, v. 1: U.S. Geological Survey Professional Paper 1560, P. 223-256.
- Madin, I.P., 1990, Earthquake hazard geology maps of the Portland metropolitan area, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report 0-90-2, scale 1:24,000, 22 p.
- Madin, I.P. and Mabey, M.A., 1996, Earthquake Hazard Maps for Oregon, Oregon: Oregon Department of Geology and Mineral Industries GMS-100.
- Oregon Department of Geology and Mineral Industries, 2018, Oregon HazVu: Statewide Geohazards Viewer (HazVu): <http://www.oregongeology.org/hazvu/>
- Peterson, C.D., Darioenzo, M.E., Burns, S.F., and Burris, W.K., 1993, Field trip guide to Cascadia paleoseismic evidence along the northern California coast: evidence of subduction zone seismicity in the central Cascadia margin: *Oregon Geology*, v. 55, p. 99-144.
- Snyder, D.T., 2008, Estimated Depth to Ground Water and Configuration of the Water Table in the Portland, Oregon Area: U.S. Geological Survey Scientific Investigations Report 2008-5059, 41 p., 3 plates.
- United States Geologic Survey, 2018, U.S. Seismic Design Maps Online Tool, <http://earthquake.usgs.gov/designmaps/us/application.php>

- Unruh, J.R., Wong, I.G., Bott, J.D., Silva, W.J., and Lettis, W.R., 1994, Seismotectonic evaluation: Scoggins Dam, Tualatin Project, Northwest Oregon: unpublished report by William Lettis and Associates and Woodward Clyde Federal Services, Oakland, CA, for U. S. Bureau of Reclamation, Denver CO (in Geomatrix Consultants, 1995).
- Werner, K.S., Nabelek, J., Yeats, R.S., Malone, S., 1992, The Mount Angel fault: implications of seismic-reflection data and the Woodburn, Oregon, earthquake sequence of August, 1990: Oregon Geology, v. 54, p. 112-117.
- Wong, I. Silva, W., Bott, J., Wright, D., Thomas, P., Gregor, N., Li, S., Mabey, M., Sojourner, A., and Wang, Y., 2000, Earthquake Scenario and Probabilistic Ground Shaking Maps for the Portland, Oregon, Metropolitan Area; State of Oregon Department of Geology and Mineral Industries; Interpretative Map Series IMS-15.
- Yeats, R.S., Graven, E.P., Werner, K.S., Goldfinger, C., and Popowski, T., 1996, Tectonics of the Willamette Valley, Oregon: in Assessing earthquake hazards and reducing risk in the Pacific Northwest, v. 1: U.S. Geological Survey Professional Paper 1560, P. 183-222, 5 plates, scale 1:100,000.
- Yelin, T.S., 1992, An earthquake swarm in the north Portland Hills (Oregon): More speculations on the seismotectonics of the Portland Basin: Geological Society of America, Programs with Abstracts, v. 24, no. 5, p. 92.

CHECKLIST OF RECOMMENDED GEOTECHNICAL TESTING AND OBSERVATION

Item No.	Procedure	Timing	By Whom	Done
1	Preconstruction meeting	Prior to beginning site work	Contractor, Developer, Civil and Geotechnical Engineers	
2	Fill removal from site or sorting and stockpiling	Prior to mass stripping	Soil Technician/ Geotechnical Engineer	
3	Stripping, aeration, and root-picking operations	During stripping	Soil Technician	
4	Compaction testing of engineered fill (90% of Modified Proctor)	During filling, tested every 2 vertical feet	Soil Technician	
5	Compaction testing of trench backfill (95% of Standard Proctor)	During backfilling, tested every 4 vertical feet for every 200 lineal feet	Soil Technician	
6	Street Subgrade Compaction (95% of Standard Proctor)	Prior to placing base course	Soil Technician	
7	Base course compaction (95% of Modified Proctor)	Prior to paving, tested every 200 lineal feet	Soil Technician	
8	AC Compaction (92% (bottom lift) / 92% (top lift) of Rice)	During paving, tested every 200 lineal feet	Soil Technician	
9	Final Geotechnical Engineer's Report	Completion of project	Geotechnical Engineer	



Legend

Approximate Scale 1 in = 2,000 ft

Date: 11/9/2018

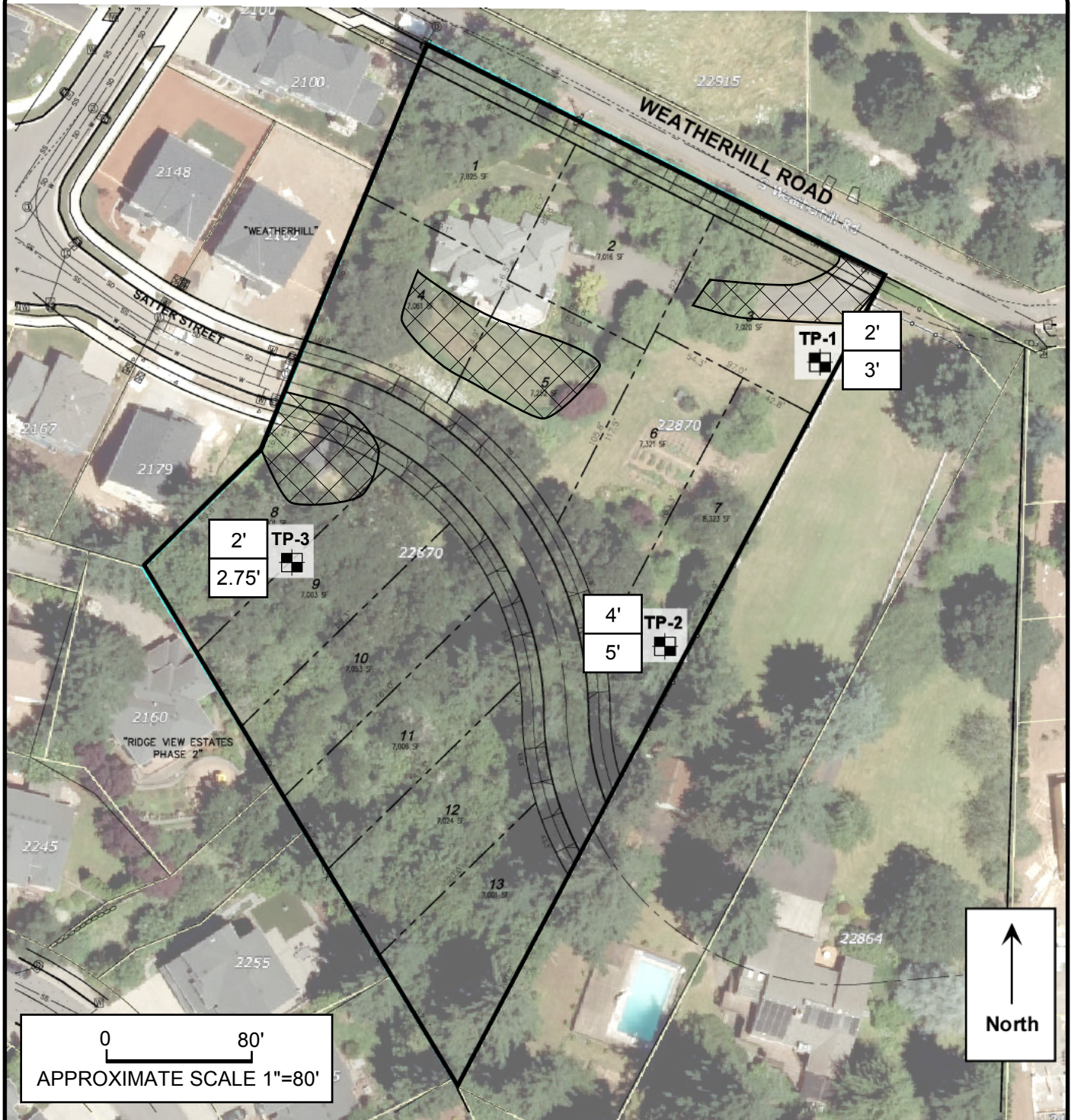
Drawn by: EKR

Base map: U.S. Geological Survey 7.5 minute Topographic Map Series, Canby, Oregon Quadrangle, 1961 (Photorevised 1985).

Project: 22870 Weatherhill Road Subdivision
West Linn, Oregon

Project No. 18-5062

FIGURE 1



Legend	
TP-1	Test Pit Designation and Approximate Location
2.5'	2.5' = Depth at Which Rock is First Encountered
5'	5' = Depth of Practical Refusal on Rock

Area of Potential Fill based on Reconnaissance

Date: 11/9/2018
 Drawn by: EKR



14835 SW 72nd Avenue
 Portland, Oregon 97224
 Tel: (503) 598-8445 Fax: (503) 941-9281

TEST PIT LOG







Project: 22870 Weatherhill Road Subdivision
 West Linn, Oregon

Project No. 18-5062

Test Pit No. **TP-1**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Sample Type	In-Situ Dry Density (lb/ft ³)	Moisture Content (%)	Water Bearing Zone	Material Description
1	2.0					Low to moderately organic SILT (OL-ML), brown, light loose, fine roots throughout, damp to moist (Topsoil Horizon)
2	3.0					Very stiff, silty CLAY (CL) to clayey SILT (ML), with gray basalt fragments, light reddish-brown, trace fine roots, damp to moist (Residual Soil)
3						Extremely soft (R0) to soft (R2), highly weathered BASALT, light gray, trace black staining, yellow secondary mineralization, damp to moist (Columbia River Basalt Formation)
4						Practical Refusal on Medium Hard (R3) Basalt at 3 Feet.
5						Note: No seepage or groundwater encountered.
6						
7						
8						
9						
10						
11						
12						

LEGEND

k Tube Sample Seepage Water Bearing Zone Water Level at Abandonment

Date Excavated: 10/17/2018
 Logged By: B. Rapp
 Surface Elevation:



14835 SW 72nd Avenue
 Portland, Oregon 97224
 Tel: (503) 598-8445 Fax: (503) 941-9281

TEST PIT LOG







Project: 22870 Weatherhill Road Subdivision
 West Linn, Oregon

Project No. 18-5062

Test Pit No. **TP-2**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Sample Type	In-Situ Dry Density (lb/ft ³)	Moisture Content (%)	Water Bearing Zone	Material Description
1	2.5					Moderately organic SILT (OL-ML), dark brown, loose, fine and large roots throughout, damp (Topsoil Horizon)
2	4.5					Very stiff, silty CLAY (CL) to clayey SILT (ML), trace gray basalt fragments, light reddish-brown, subtle orange and gray mottling, trace fine roots, damp to moist (Residual Soil)
3	4.5					
4	4.5					Soft (R2), highly weathered BASALT, trace reddish-brown silty clay to clayey silt matrix, light gray, trace black staining, yellow secondary mineralization, damp to moist (Columbia River Basalt Formation)
5						<p>Practical Refusal on Medium Hard (R3) Basalt at 5 Feet.</p> <p>Note: No seepage or groundwater encountered.</p>
6						
7						
8						
9						
10						
11						
12						

LEGEND

					
	k	Tube Sample	Seepage	Water Bearing Zone	Water Level at Abandonment

Date Excavated: 10/17/2018
 Logged By: B. Rapp
 Surface Elevation:



14835 SW 72nd Avenue
 Portland, Oregon 97224
 Tel: (503) 598-8445 Fax: (503) 941-9281

TEST PIT LOG







Project: 22870 Weatherhill Road Subdivision
 West Linn, Oregon

Project No. 18-5062

Test Pit No. **TP-3**

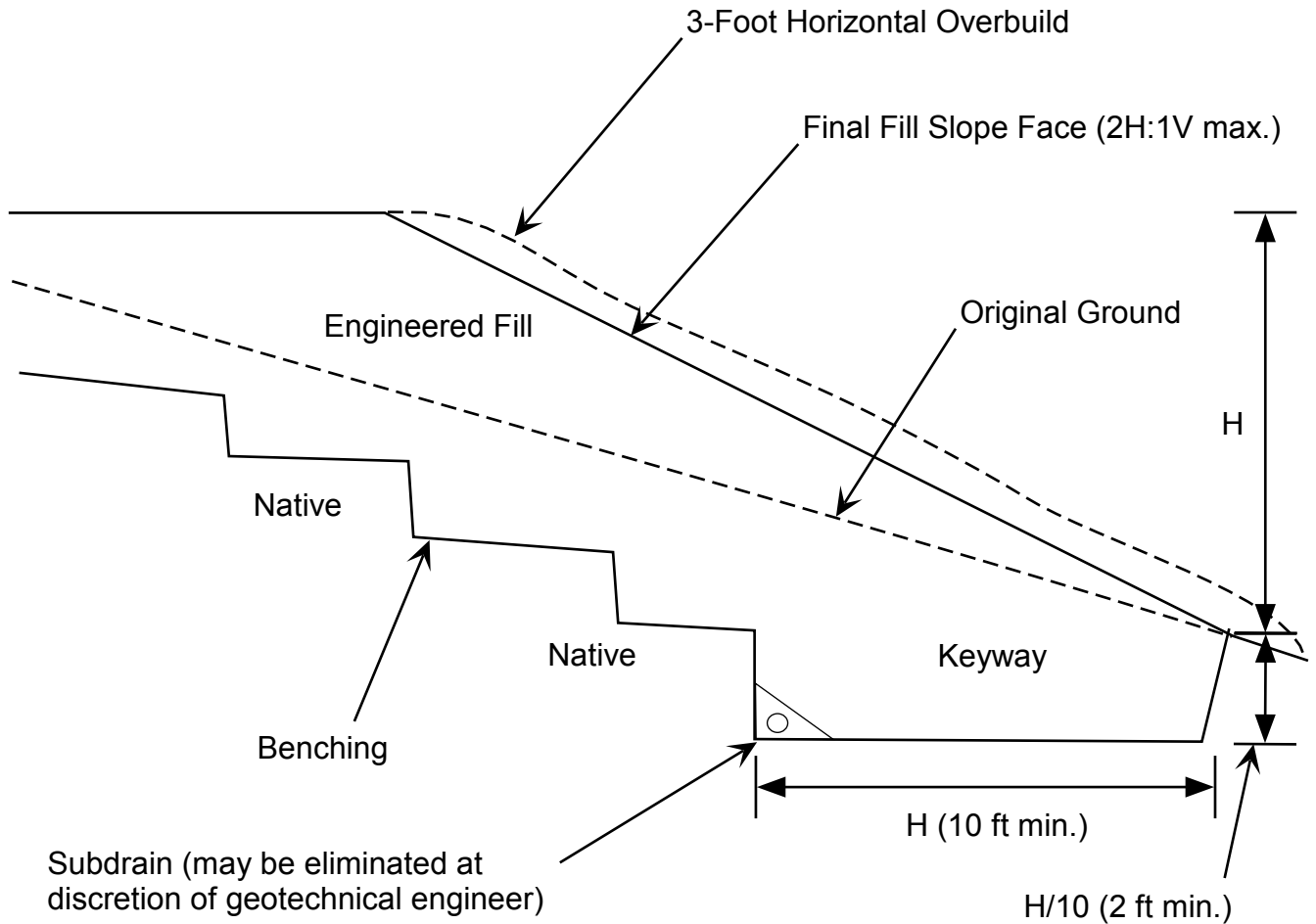
Depth (ft)	Pocket Penetrometer (tons/ft ²)	Sample Type	In-Situ Dry Density (lb/ft ³)	Moisture Content (%)	Water Bearing Zone	Material Description
1	4.5					Low to moderately organic SILT (OL-ML), brown, light loose, fine roots throughout, damp to moist (Topsoil Horizon)
2	4.5					Very stiff, silty CLAY (CL) to clayey SILT (ML), with gray basalt fragments, light reddish-brown, trace fine roots, damp to moist (Residual Soil)
3						Very soft (R1) to soft (R2), highly weathered BASALT, light gray, trace black staining, yellow secondary mineralization, damp to moist (Columbia River Basalt Formation)
4						<p>Practical Refusal on Medium Hard (R3) Basalt at 2.75 Feet.</p> <p>Note: No seepage or groundwater encountered.</p>
5						
6						
7						
8						
9						
10						
11						
12						

LEGEND

					
	k	Tube Sample	Seepage	Water Bearing Zone	Water Level at Abandonment

Date Excavated: 10/17/2018
 Logged By: B. Rapp
 Surface Elevation:

TYPICAL KEYWAY, BENCHING & FILL SLOPE DETAIL



Recommended subdrain is minimum 3-inch-diameter ADS Heavy Duty grade (or equivalent), perforated plastic pipe enveloped in a minimum of 3 cubic feet per lineal foot of 2" to 1/2" open-graded gravel drain rock wrapped with geotextile filter fabric (Mirafi 140N or equivalent).

EMERIO *Design*

CIVIL ENGINEERS & PLANNERS

Stormwater Management Report Weatherhill Road Subdivision 12-Lot Subdivision at 22870 Weatherhill Road West Linn, Oregon

Emerio Project Number: 463-003
City of West Linn Permit Numbers: TBD
Date: 12/19/2018



Prepared For:
Rod Friesen & Bob Schultz
22870 Weatherhill, LLC
12810 SW Morningstar Dr.
Tigard, OR 97223
rod.friesen@frontier.com
duke.pdx@gmail.com

Prepared By:
Eric Evans, PE
Emerio Design, LLC
6445 SW Fallbrook Pl, Suite 100
Beaverton, Oregon 97008
eric@emeriodesign.com
(503) 746-8812

Table of Contents:

APPENDIX A

- (1) Vicinity Map

APPENDIX B

- (1) Soils Maps--"Soils Survey for Multnomah County"

APPENDIX C

- (1) Basin Area Tabulated Data
- (2) Online Presumptive Approach Calculator (PAC) Output
- (3) HydroCAD Output - Conveyance Storm Flows

APPENDIX D

- (1) Pre-Developed Site Map
- (2) Post-Developed Site Map

Project Overview and Description:

Size and location of project site (vicinity map):

The current site is located in the south part of West Linn on the south side of Weatherhill Road, approximately 120 feet east of the intersection of Satter Street & Weatherhill Road. One large lot will be divided into 12 lots. The proposed site is 2.57 acres and will encompass roughly 45,105 SF of impervious onsite improvements and 6,560 SF offsite impervious improvement. Reference the vicinity map provided in Appendix A(1).

Property Zoning: The property is zoned R7 (Residential 7,000 SF lots).

Type of Development/Proposed Improvements: The proposed development will consist of a public street, a tract for stormwater, and new homes and driveways will be constructed on each lot.

Existing vs. post-construction conditions: the current (existing) site condition consists of an under-developed forested lot with one house, attached garage, and associated driveway.

Watershed Description: The site drainage area presently sheet flows south toward adjacent lots and into Crestview Drive. There is an existing ephemeral stream/drainage at the south line of the site along the middle of the property line where onsite flows collect and flow south through an existing easement to a culvert routing under Crestview Drive. In the post-developed condition, the site impervious flows will be treated onsite and discharged at the existing ephemeral stream location. Drainage basin areas are shown in Appendix D(2).

Soil Classification:

The NRCS soil survey of Clackamas County, Oregon classifies the onsite soils as Cascade-urban land complex soil. The associated hydrologic group of this soil is C, see Appendix B(1). A curve number of 74 is used for pre-developed pervious surfaces and 98 and 86 are used for impervious and pervious surfaces.

Methodology:

This project proposes on lot LIDA flow-through planter boxes to address private stormwater requirements, and Green Streets flow-through planters to address public ROW stormwater requirements. The proposed grading will retain the general existing drainage pattern for pervious areas of the site. ROW planters and private LIDA planters will all be routed to the same discharge location at the existing southwest ephemeral stream drainage.

Water Quality

Water quality will be achieved by means of a city of Portland planter boxes sized using the online Presumptive Approach Calculator (PAC). Stormwater runoff will enter the planter boxes by curb inlets and filter through an 18" layer of amended soil before reaching a 12" section of drain rock and a perf pipe to be routed offsite (see attached detail Appendix D(3)). The planter boxes are concrete/lined to prevent infiltration into native soil. The pollution reduction event (water quality) is shown to

be satisfied when using the online analysis tool provided by the city of Portland. See Quantity Control/Detention and Appendix C(2) for sizing of the planter boxes.

Quantity Control/Detention

As required by the City of West Linn, detention was analyzed for the 2, 5, 10, and 25-year design storms.

Satter St. North ROW LIDA Facilities Area: 675 SF x 1.5 = 1,012 SF		
Return Period	Pre-Developed (CFS)	Post-Developed Planter Discharge (CFS)
2-Year	½ of 0.016	0.031
5-Year	0.031	0.031
10-Year	0.048	0.031
25-Year	0.067	0.061

Satter St. South ROW LIDA Facilities Area: 585 SF x 1.5 = 878 SF		
Return Period	Pre-Developed (CFS)	Post-Developed Planter Discharge (CFS)
2-Year	½ of 0.012	0.025
5-Year	0.024	0.024
10-Year	0.037	0.025
25-Year	0.052	0.047

Note from the table above, that while the 2-year post developed rate exceeds the pre-developed ½ of the 2-year rate shown in the PAC results, it has been determined by BES staff that there is a glitch in the PAC calculator that does not properly analyze the lesser detention storm events and they have reasoned this is acceptable provided that the 10 and 25-year storm events pass requirements. This design passes the 5-year through 25-year events.

The surface area of planter resulting from the PAC analysis was increased by a design factor of 1.5 per city of West Linn staff guidelines. Reference Appendix C(2) for online PAC output results.

Stormwater Conveyance

Onsite conveyance will be by means of 12" storm water pipe from Satter Street routing all the way to the discharge point in the existing utility easement south of this site. For conservatism, the total discharge flow rate from proposed stormwater pipe was used to analyze the lowest potential pipe design slope at 0.5%. See Appendix C(3) for HydroCAD flow rates used.

Analysis:

The following design assumptions were utilized in this design.

Design Storm: *Water quality storm = **0.83" in 24 hours**
 *2-year 24-hour storm = **2.4" in 24 hours**
 *5-year 24-hour storm = **2.9" in 24 hours**
 *10-year 24-hour storm = **3.4" in 24 hours**
 *25-year 24-hour storm = **3.9" in 24 hours**
Conveyance: 25-year 24-hour storm = **3.9" in 24 hours** (West Linn)

*Note that City of Portland design storms are listed since the online PAC was used.

Computation methods and software utilized in the design were from the online PAC and HydroCAD V-10.

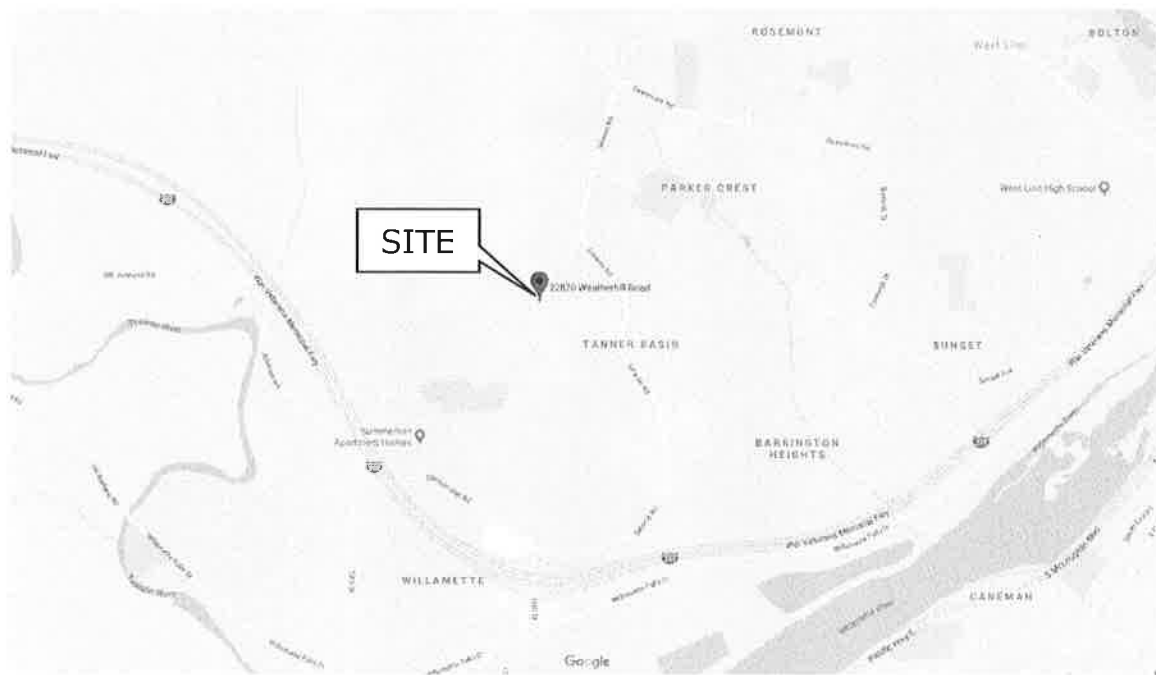
Curve numbers utilized in the design were 98 for impervious areas, 86 for pervious areas, and 74 for predeveloped pervious areas.

Engineering Conclusions:

The design of the proposed stormwater management facilities satisfies the pollution reduction, conveyance and detention standards required by the 2010 City of West Linn Public Works Design Standards.

Appendix A:

Appendix A(1)
Vicinity Map



Appendix B:

Appendix B(1)
Soil Classification



Tables -- Hydrologic Soil Group -- Summary by Map Unit

Summary by Map Unit -- Clackamas County Area, Oregon (OR610)

Summary by Map Unit -- Clackamas County Area, Oregon (OR610)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
64C	Nekia silty clay loam, 8 to 15 percent slopes	C	0.2	5.0%
78C	Saum silt loam, 8 to 15 percent slopes	C	3.4	95.0%
Totals for Area of Interest			3.6	100.0%

SITE

Appendix C:

Basin Area Tabulated Data
 Weatherhill Road Subdivision

Basin #	Name	Total Area SF	Total Area Acres	Qty of Lots	Lot Impervious SF	ROW/Tract Imp SF	Total Impervious SF	Total Pervious (Calc'd) SF
101	North	8,552	0.20	0	0	8,552	8,552	0
102	South	6,553	0.15	0	0	6,553	6,553	0
103	Lots	30,000	0.69	12	30,000	0	30,000	0

PAC Report

Project Name Weatherhill Rd	Permit No.	Created 12/3/18 10:48 AM
Project Address 22870 Weatherhill Rd West Linn, OR 97068	Designer Emerio Design	Last Modified 12/19/18 2:01 PM
	Company Emerio Design	Report Generated 12/19/18 2:01 PM

Project Summary

12 Lot Subdivision

Catchment Name	Impervious Area (sq ft)	Native Soil Design Infiltration Rate	Hierarchy Category	Facility Type	Facility Config	Facility Size (sq ft)	Facility Sizing Ratio	PR Results	Flow Control Results
North	8552	0.01	3	Planter (Sloped)	D		7.9%	Pass	Fail
South	6553	0.10	3	Planter (Sloped)	D		8.9%	Pass	Fail

Catchment North

Site Soils & Infiltration Testing Data

Infiltration Testing Procedure

Open Pit Falling Head

Native Soil Infiltration Rate (I_{test})

0.01 

Correction Factor

CF_{test}

2

Design Infiltration Rates

Native Soil (I_{dsgn})

0.01 in/hr 

Imported Growing Medium

2.00 in/hr

Catchment Information

Hierarchy Category

3

Disposal Point

B

Hierarchy Description

Off-site flow to drainageway, river, or storm-only pipe system

Pollution Reduction Requirement

Pass

10-year Storm Requirement

N/A

If discharging to an overland drainage system or to a storm sewer that discharges to an overland drainage system, including streams, drainageways, and ditches, the 2-year post-development peak flow must be equal or less than half of the 2-year pre-development rate and the 5, 10, and 25-year post-development peak rate must be equal or less than the pre-development rates for the corresponding design storms.

Flow Control Requirement

Impervious Area

8552 sq ft
0.196 acre

Time of Concentration (T_c)

5

Pre-Development Curve Number (CN_{pre})

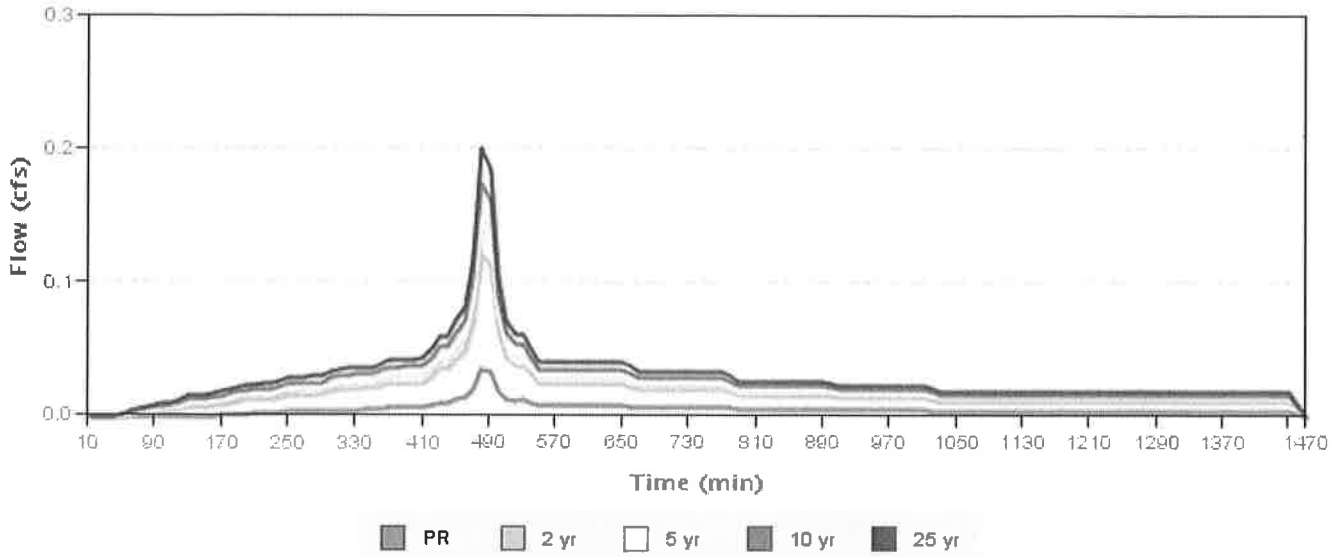
74

Post-Development Curve Number (CN_{post})

98

 Indicates value is outside of recommended range

SBUH Results



	Pre-Development Rate and Volume		Post-Development Rate and Volume	
	Peak Rate (cfs)	Volume (cf)	Peak Rate (cfs)	Volume (cf)
PR	0	3.172	0.035	446.866
2 yr	0.016	394.001	0.121	1547.449
5 yr	0.031	602.513	0.147	1901.892
10 yr	0.048	834.826	0.174	2256.866
25 yr	0.067	1085.619	0.201	2612.174

Facility North

Facility Details	Facility Type	Planter (Sloped)
	Facility Configuration	D: Lined Facility with RS and Ud
	Facility Shape	Sloped
Above Grade Storage Data		
	Growing Medium Depth	18 in
	Surface Capacity at Depth 1	476.7 cu ft
	Design Infiltration Rate for Native Soil	0.000 in/hr
	Infiltration Capacity	0.031 cfs
Facility Facts	Total Facility Area Including Freeboard	675.00 sq ft
	Sizing Ratio	7.9%
Pollution Reduction Results	Pollution Reduction Score	Pass
	Overflow Volume	449.429 cf
	Surface Capacity Used	1%
Flow Control Results	Flow Control Score	Fail
	Overflow Volume	2255.169 cf
	Surface Capacity Used	89%

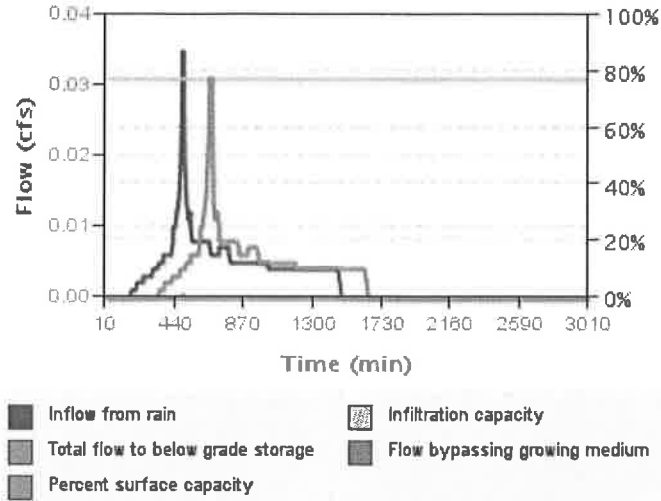
	Post-development outflow (cfs)		Pre-development inflow (cfs)	
2 year	0.031	≤ ½ of	0.016	Fail
5 year	0.031	≤	0.031	Pass
10 year	0.031	≤	0.048	Pass
25 year	0.061	≤	0.067	Pass

Sloped Facility Worksheet

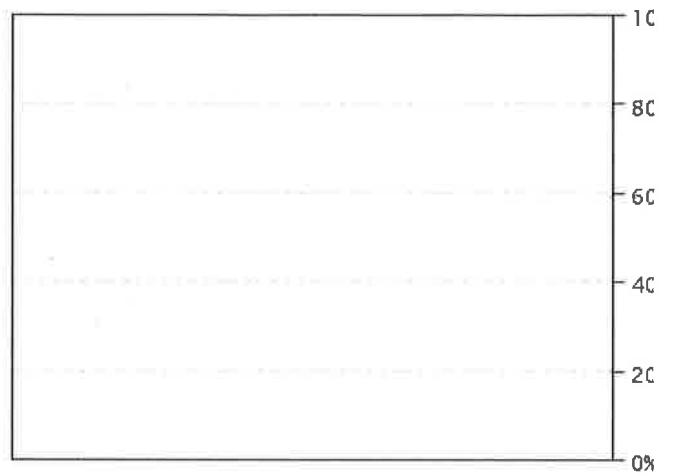
#	Segment Length (ft)	Check Dam Length (ft)	Slope, v/h (ft/ft)	Bottom Width (ft)	Right Side Slope, h/v (ft/ft)	Left Side Slope, h/v (ft/ft)	Downstream Depth (in)	Landscape Width (ft)
1	10.00	0.50	0.0050	7.50	0.0	0.0	9.0	7.50
2	10.00	0.50	0.0050	7.50	0.0	0.0	9.0	7.50
3	10.00	0.50	0.0050	7.50	0.0	0.0	9.0	7.50
4	12.00	0.50	0.0050	7.50	0.0	0.0	9.0	7.50

5	12.00	0.50	0.0050	7.50	0.0	0.0	9.0	7.50
6	12.00	0.50	0.0050	7.50	0.0	0.0	9.0	7.50
7	12.00	0.50	0.0050	7.50	0.0	0.0	9.0	7.50
8	12.00	0.50	0.0050	7.50	0.0	0.0	9.0	7.50

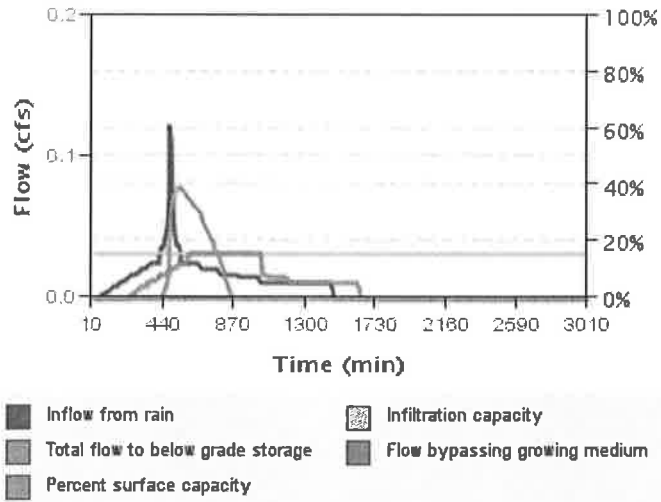
Pollution Reduction Event Surface Facility Modeling



Pollution Reduction Event Below Grade Modeling



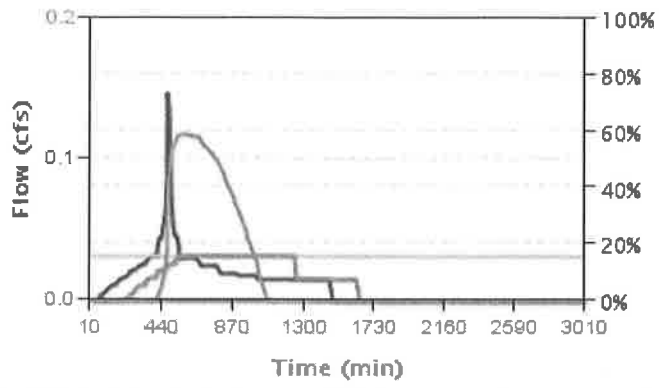
2 Year Event Surface Facility Modeling



2 Year Event Below Grade Modeling



5 Year Event Surface Facility Modeling

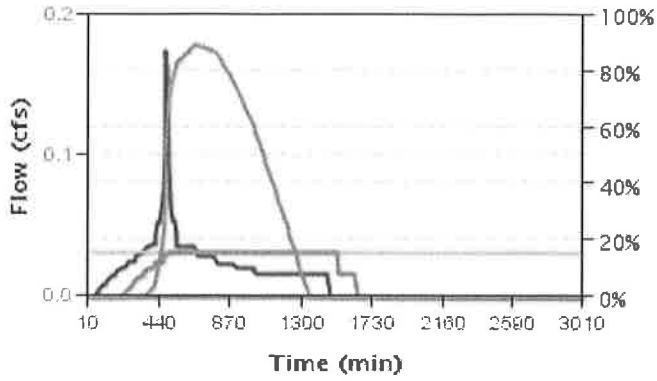


- Inflow from rain
- Total flow to below grade storage
- Percent surface capacity
- Infiltration capacity
- Flow bypassing growing medium

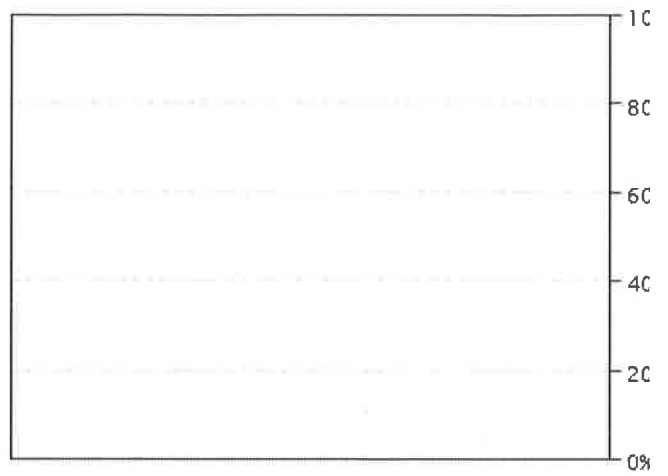
5 Year Event Below Grade Modeling



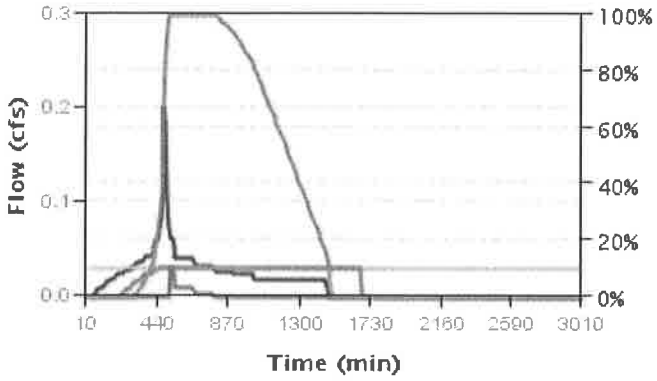
10 Year Event Surface Facility Modeling



10 Year Event Below Grade Modeling



25 Year Event Surface Facility Modeling



25 Year Event Below Grade Modeling



Catchment South

Site Soils & Infiltration Testing Data

Infiltration Testing Procedure

Encased Falling Head

Native Soil Infiltration Rate (I_{test})

0.10 

Correction Factor

CF_{test}

2

Design Infiltration Rates

Native Soil (I_{dsgn})

0.05 in/hr 

Imported Growing Medium

2.00 in/hr

Catchment Information

Hierarchy Category

3

Disposal Point

B

Hierarchy Description

Off-site flow to drainageway, river, or storm-only pipe system

Pollution Reduction Requirement

Pass

10-year Storm Requirement

N/A

If discharging to an overland drainage system or to a storm sewer that discharges to an overland drainage system, including streams, drainageways, and ditches, the 2-year post-development peak flow must be equal or less than half of the 2-year pre-development rate and the 5, 10, and 25-year post-development peak rate must be equal or less than the pre-development rates for the corresponding design storms.

Flow Control Requirement

Impervious Area

6553 sq ft
0.150 acre

Time of Concentration (T_c)

5

Pre-Development Curve Number (CN_{pre})

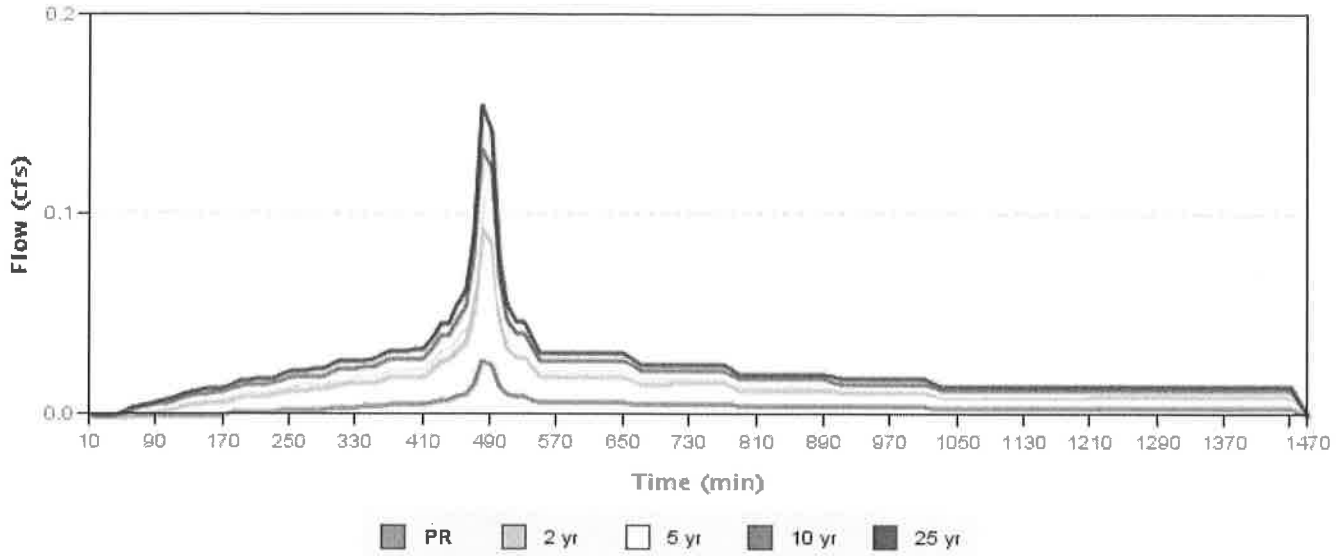
74

Post-Development Curve Number (CN_{post})

98

 Indicates value is outside of recommended range

SBUH Results



	Pre-Development Rate and Volume		Post-Development Rate and Volume	
	Peak Rate (cfs)	Volume (cf)	Peak Rate (cfs)	Volume (cf)
PR	0	2.431	0.027	342.413
2 yr	0.012	301.904	0.093	1185.738
5 yr	0.024	461.678	0.113	1457.332
10 yr	0.037	639.688	0.133	1729.332
25 yr	0.052	831.859	0.154	2001.588

Facility South

Facility Details	Facility Type	Planter (Sloped)
	Facility Configuration	D: Lined Facility with RS and Ud
	Facility Shape	Sloped
Above Grade Storage Data		
	Growing Medium Depth	18 in
	Surface Capacity at Depth 1	356.8 cu ft
	Design Infiltration Rate for Native Soil	0.000 in/hr
	Infiltration Capacity	0.024 cfs
Facility Facts	Total Facility Area Including Freeboard	585.00 sq ft
	Sizing Ratio	8.9%
Pollution Reduction Results	Pollution Reduction Score	Pass
	Overflow Volume	346.022 cf
	Surface Capacity Used	1%
Flow Control Results	Flow Control Score	Fail
	Overflow Volume	1725.118 cf
	Surface Capacity Used	87%

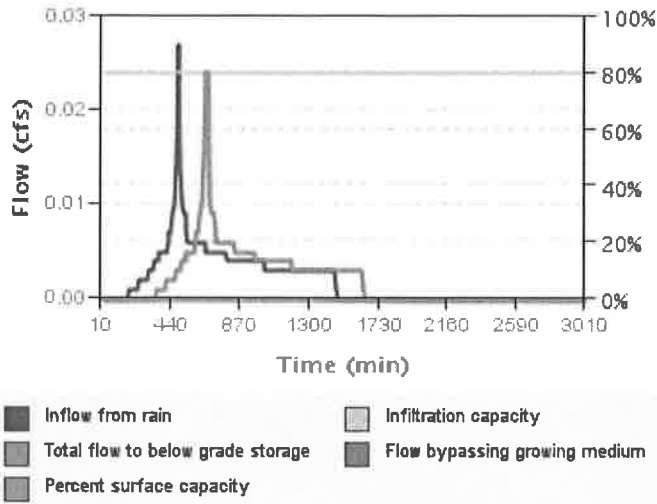
	Post-development outflow (cfs)		Pre-development inflow (cfs)	
2 year	0.024	≤ ½ of	0.012	Fail
5 year	0.024	≤	0.024	Fail
10 year	0.024	≤	0.037	Pass
25 year	0.047	≤	0.052	Pass

Sloped Facility Worksheet

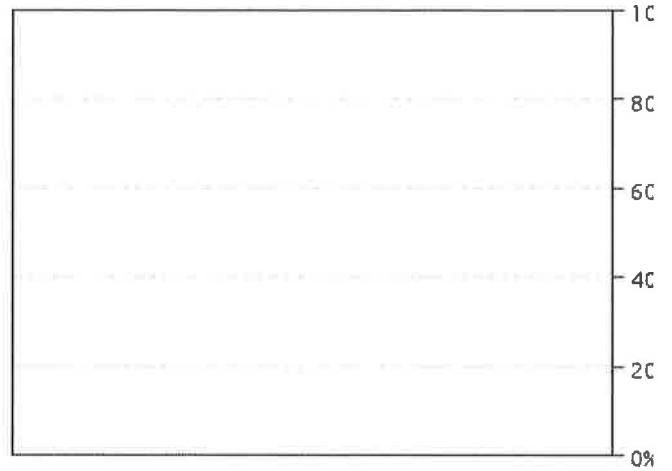
#	Segment Length (ft)	Check Dam Length (ft)	Slope, v/h (ft/ft)	Bottom Width (ft)	Right Side Slope, h/v (ft/ft)	Left Side Slope, h/v (ft/ft)	Downstream Depth (in)	Landscape Width (ft)
1	15.00	0.50	0.0000	4.25	0.0	3.0	9.0	6.50
2	15.00	0.50	0.0000	4.25	0.0	3.0	9.0	6.50
3	15.00	0.50	0.0000	4.25	0.0	3.0	9.0	6.50
4	15.00	0.50	0.0000	4.25	0.0	3.0	9.0	6.50

5	15.00	0.50	0.0000	4.25	0.0	3.0	9.0	6.50
6	15.00	0.50	0.0000	4.25	0.0	3.0	9.0	6.50

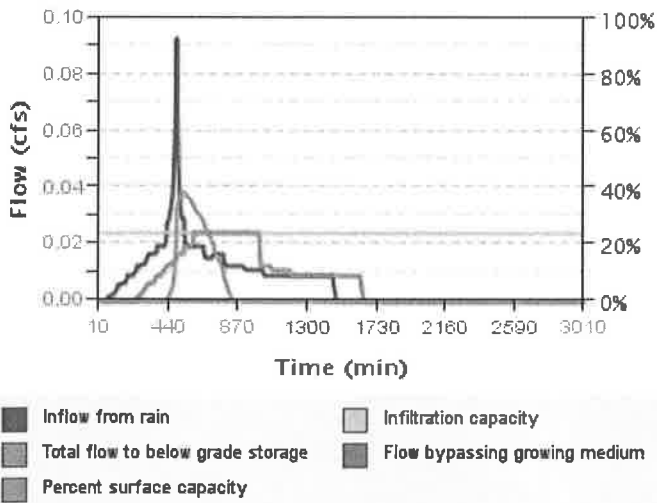
Pollution Reduction Event Surface Facility Modeling



Pollution Reduction Event Below Grade Modeling



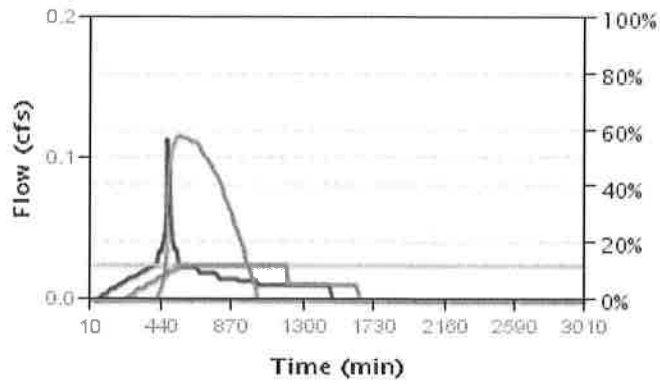
2 Year Event Surface Facility Modeling



2 Year Event Below Grade Modeling

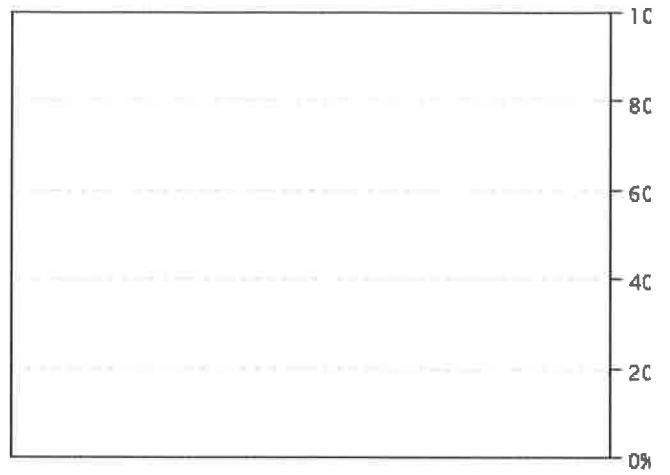


5 Year Event Surface Facility Modeling

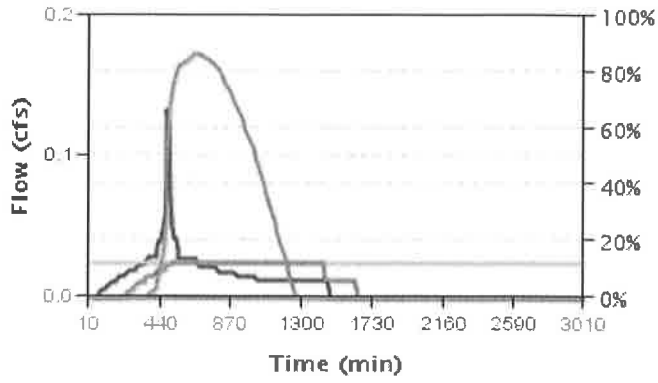


- Inflow from rain
- Total flow to below grade storage
- Percent surface capacity
- Infiltration capacity
- Flow bypassing growing medium

5 Year Event Below Grade Modeling

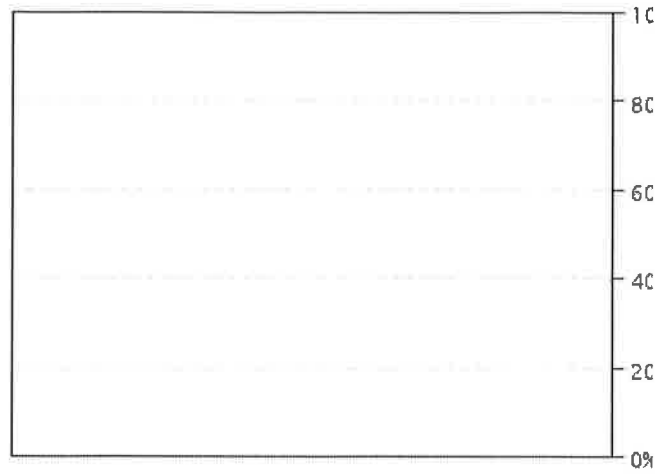


10 Year Event Surface Facility Modeling

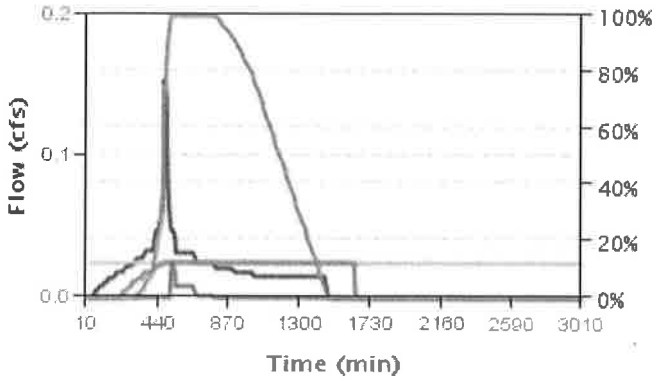


- Inflow from rain
- Total flow to below grade storage
- Percent surface capacity
- Infiltration capacity
- Flow bypassing growing medium

10 Year Event Below Grade Modeling

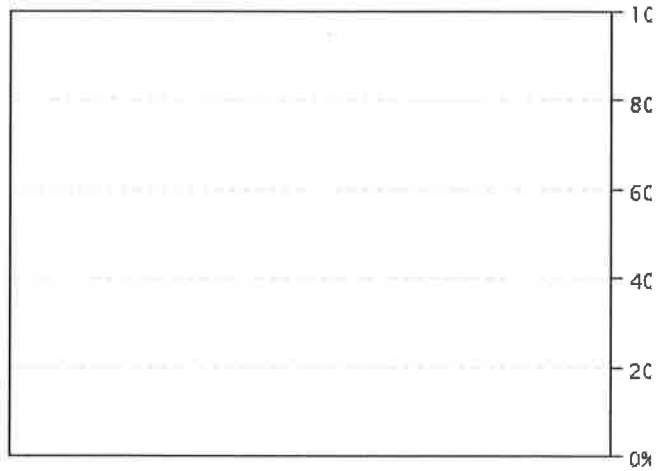


25 Year Event Surface Facility Modeling



- Inflow from rain
- Total flow to below grade storage
- Percent surface capacity
- Infiltration capacity
- Flow bypassing growing medium

25 Year Event Below Grade Modeling

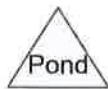




Site Routed Flows



Site Outfall



Summary for Subcatchment 201: Site Routed Flows

Runoff = 1.41 cfs @ 7.90 hrs, Volume= 19,796 cf, Depth= 3.12"

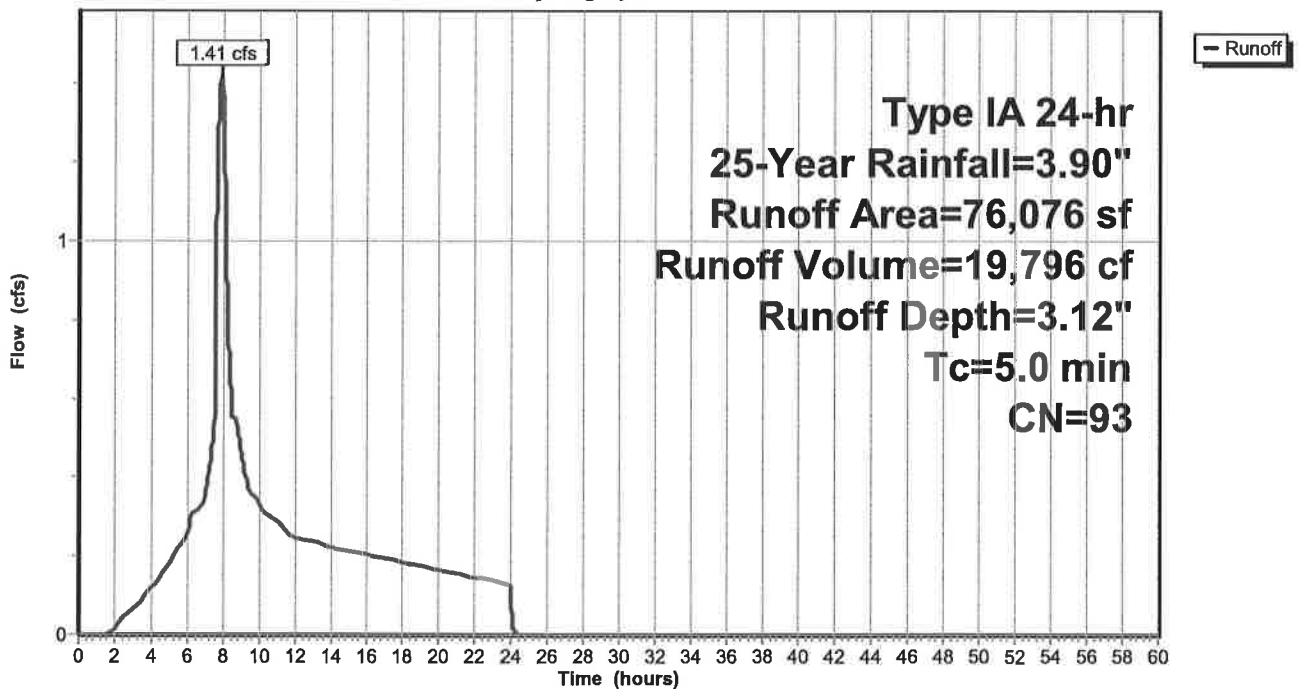
Runoff by SBUH method, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type IA 24-hr 25-Year Rainfall=3.90"

	Area (sf)	CN	Description
*	15,105	98	streets & curb
*	30,000	98	12 lots
	30,971	86	<50% Grass cover, Poor, HSG C
	76,076	93	Weighted Average
	30,971	86	40.71% Pervious Area
	45,105	98	59.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 201: Site Routed Flows

Hydrograph



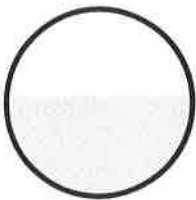
Summary for Reach 4R: Site Outfall

Inflow Area = 76,076 sf, 59.29% Impervious, Inflow Depth = 3.12" for 25-Year event
 Inflow = 1.41 cfs @ 7.90 hrs, Volume= 19,796 cf
 Outflow = 1.41 cfs @ 7.90 hrs, Volume= 19,796 cf, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.30 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.90 fps, Avg. Travel Time= 0.2 min

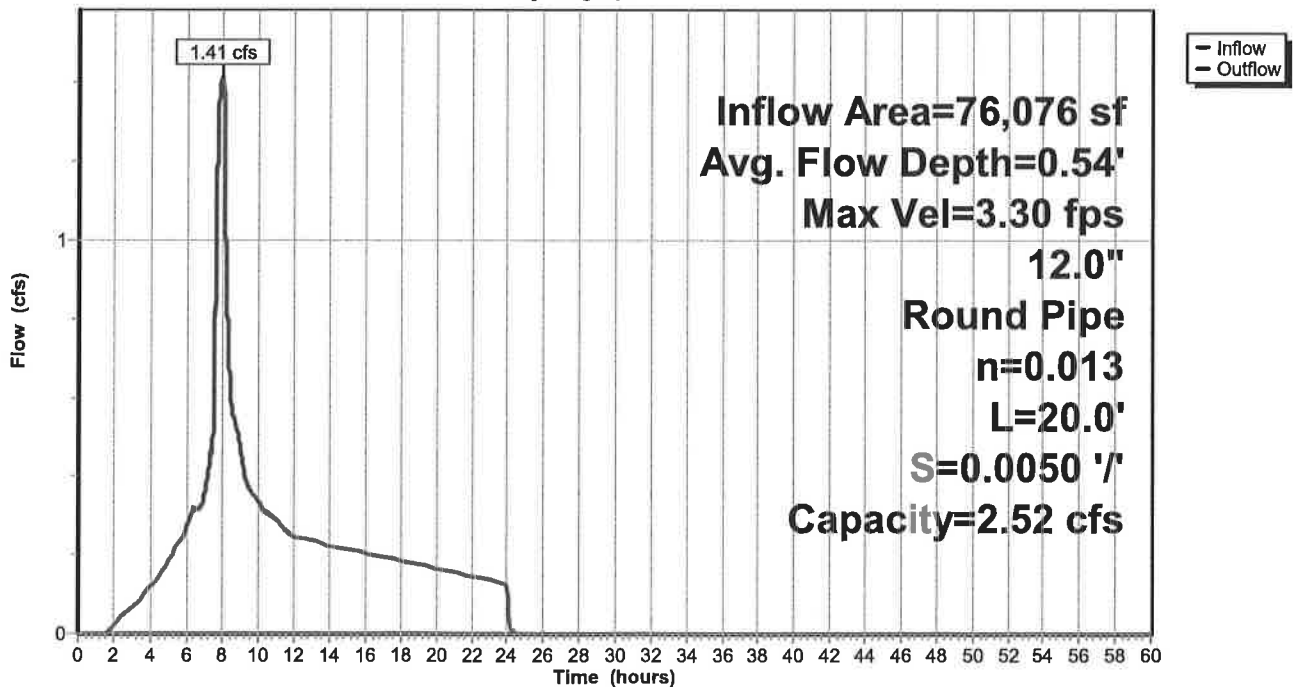
Peak Storage= 9 cf @ 7.90 hrs
 Average Depth at Peak Storage= 0.54'
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.52 cfs

12.0" Round Pipe
 n= 0.013
 Length= 20.0' Slope= 0.0050 1/100
 Inlet Invert= 100.00', Outlet Invert= 99.90'

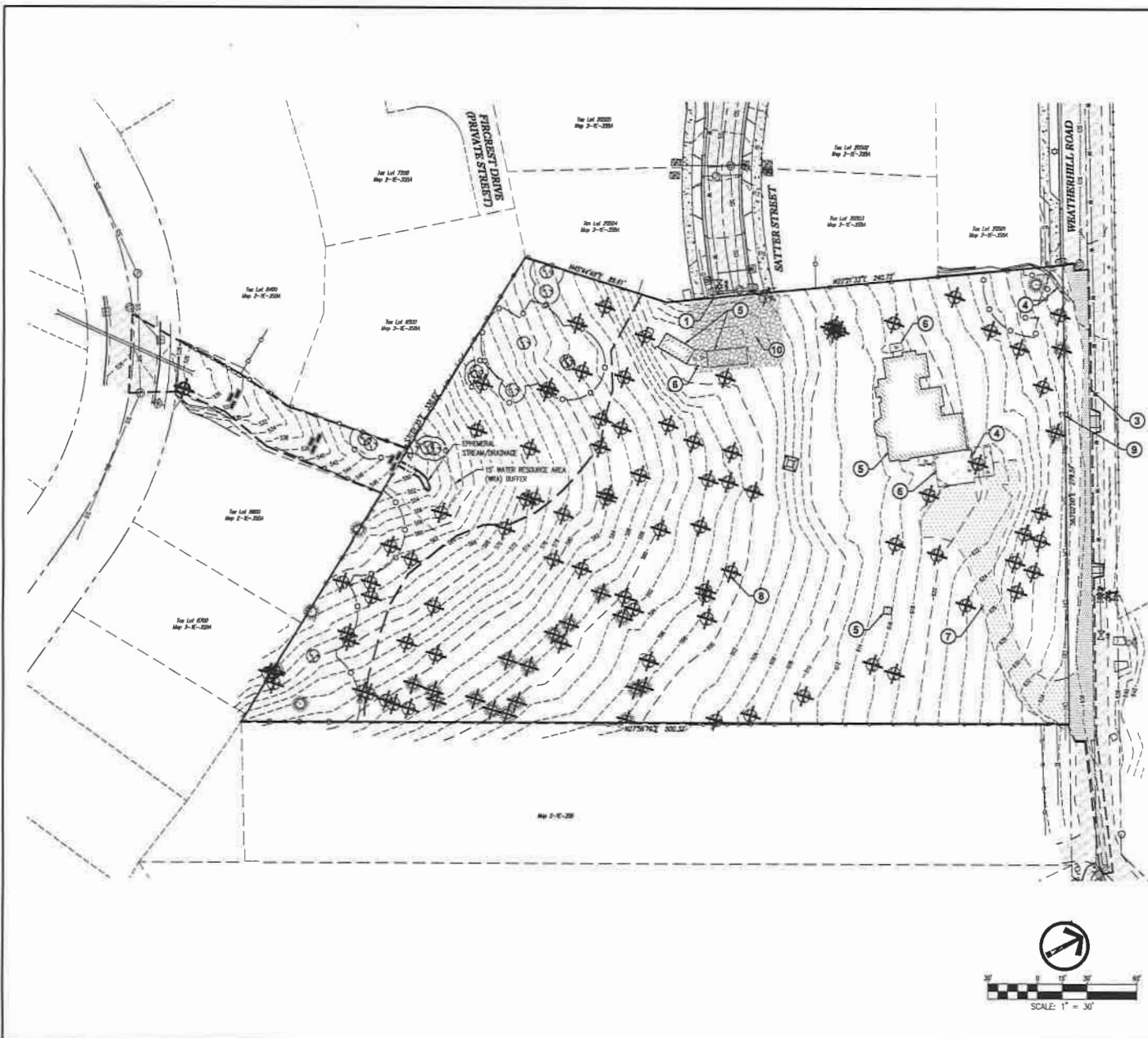


Reach 4R: Site Outfall

Hydrograph



Appendix D:



DEMOLITION KEY NOTES

- 1 REMOVE EXISTING END OF ROAD SIGN
- 2 POPTHOLE END OF SANITARY LINE AND REMOVE EXISTING PLUG. CONTRACTOR TO NOTIFY ENGINEER IF EXISTING SANITARY INVERT ELEVATION IS DIFFERENT THAN STATED ON THESE PLANS.
- 3 SAWCUT AND REMOVE EXISTING AC
- 4 REMOVED EXISTING WALL
- 5 REMOVED EXISTING BUILDING/STRUCTURE
- 6 REMOVE EXISTING CONCRETE AREAS
- 7 REMOVE EXISTING AC DRIVEWAY
- 8 REMOVE EXISTING TREE (TRP). SEE SHEET 3 & 4 FOR DETAILED TREE PLANS
- 9 REMOVE EXISTING POWER POLE POWER TO BE UNDERGROUND.
- 10 INSTALL CONSTRUCTION ENTRANCE

GENERAL NOTES:

- A. SEE SHEETS 3 AND 4 FOR TREE PRESERVATION PLAN. TREE PROTECTION TO BE INSTALLED BEFORE ANY SITE DEMOLITION, GRUBBING, OR CLEARING.

LEGEND

- BOUNDARY OF SITE
- - - LIMITS OF CONSTRUCTION
- - - EXISTING FENCE
- - - SILT FENCE
- TREE PROTECTION FENCE

SURVEYOR'S NOTE

THE DATUM FOR THIS SURVEY IS BASED UPON OREGON REAL-TIME GNSS NETWORK (ORGN), NAVD83. A TOPCON POSITIONING SYSTEM (POS) INSTRUMENTS WERE USED TO COMPLETE THIS SURVEY. BOUNDARIES WERE DRAWN PER PLAN AND MONUMENTS FOUND. NO PROPERTY CORNERS WERE SET IN THIS SURVEY. NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUISITION, ETC. THE UNDERGROUND UTILITIES AS SHOWN ON THIS MAP HAVE BEEN LOCATED FROM FIELD SURVEY OF ABOVE GROUND STRUCTURES AND AS MARKED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES, SUBSURFACE, AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR. NO TITLE REPORT WAS SUPPLIED OR USED IN THE PREPARATION OF THIS MAP. THERE MAY EXIST EASEMENTS, CONDITIONS, OR RESTRICTIONS THAT COULD AFFECT THE TITLE OF THIS PROPERTY. NO ATTEMPT HAS BEEN MADE IN THIS SURVEY TO SHOW SUCH MATTERS THAT MAY AFFECT TITLE.



REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON LAND SURVEY BOARD AND FIELD'S OFFICE

22870 S WEATHERHILL ROAD
TAX MAP T2S R1E 35B
TAX LOT 405
WEST LINN, OREGON

EXISTING CONDITIONS, DEMOLITION, & PH 1 EROSION CONTROL PLAN

REVISIONS	DATE	BY	DESCRIPTION
	8/7/2018		REVISIONAL

EMERIO Design
4445 SW FALLINGWATER PLACE, SUITE 100
WEST LINN, OREGON 97136
TEL: (503) 734-8411
WWW.EMERIODSIGN.COM

SHEET 2 OF 11

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

Fully completed and signed report cover forms and applicable fees are required before report review timelines are initiated by the Department of State Lands. Make checks payable to the Oregon Department of State Lands. To pay fees by credit card, go online at: <https://apps.oregon.gov/DSL/EPS/program?key=4>.

Attach this completed and signed form to the front of an unbound report or include a hard copy with a digital version (single PDF file of the report cover form and report, minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279**. A single PDF of the completed cover form and report may be e-mailed to: **Wetland_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail DSL instructions on how to access the file from your ftp or other file sharing website.

<input checked="" type="checkbox"/> Applicant <input checked="" type="checkbox"/> Owner Name, Firm and Address:		Business phone # 971-235-3314 Mobile phone # (optional) E-mail: rod.friesen@frontier.com
22870 Weatherhill, LLC Billing Address: % Partnership Administrator: Rod Friesen 12810 SW Morningstar Dr., Tigard, OR 97223		
<input type="checkbox"/> Authorized Legal Agent, Name and Address (if different):		Business phone # Mobile phone # (optional) 971-732-0347 E-mail: duke.pdx@gamil.com
Managing Member: Bob Schultz 22870 Weatherhill, West Linn, OR 97068		
I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.		
Typed/Printed Name: <u>BOB SCHULTZ</u> Signature: <u>[Signature]</u> Date: <u>11-22-18</u> Special instructions regarding site access: _____		
Project and Site Information		
Project Name: 22870 Weatherhill Road	Latitude: 45.359 decimal degree - centroid of site or start & end points of linear project	Longitude: -122.652
Proposed Use: Residential subdivision	Tax Map # 2S 1E Sec 35B	Tax Lot(s) 405
Project Street Address (or other descriptive location): 22870 Weather Road,	Tax Map #	Tax Lot(s)
City: West Linn County: Clackamas	Township 2S Range 1E Section 35	QQ B
	Use separate sheet for additional tax and location information	
	Waterway:	River Mile:
Wetland Consultant Information		
Wetland Consultant Name, Firm and Address: Schott and Associates/Cari Cramer PO Box 589 Aurora, OR 97002		Phone # (503) 678-6007 Mobile phone # (if applicable) E-mail: caric@schottandassociates.com
The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.		
Consultant Signature: <u>Cari Cramer</u>		Date: <u>November 26, 2018</u>
Primary Contact for report review and site access is <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Applicant/Owner <input type="checkbox"/> Authorized Agent		
Wetland/Waters Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Study Area size: 2.56AC Total Wetland Acreage: 0.0000		
Check Application Status		
<input type="checkbox"/> R-F permit application submitted <input type="checkbox"/> Mitigation bank site <input type="checkbox"/> Industrial Land Certification Program Site <input type="checkbox"/> Wetland restoration/enhancement project (not mitigation) <input type="checkbox"/> Previous delineation/application on parcel If known, previous DSL # _____	<input checked="" type="checkbox"/> Fee payment submitted \$ 437.00 <input type="checkbox"/> Fee (\$100) for resubmittal of rejected report <input type="checkbox"/> Request for Reissuance. See eligibility criteria. (no fee) DSL # _____ Expiration date _____ <input type="checkbox"/> LWI shows wetlands or waters on parcel Wetland ID code _____	
For Office Use Only		
DSL Reviewer: _____	Fee Paid Date: ____/____/____	DSL WD # _____
Date Delineation Received: ____/____/____	Scanned: <input type="checkbox"/> Electronic: <input type="checkbox"/>	DSL App.# _____



SCHOTT & ASSOCIATES
Ecologists & Wetlands Specialists

21018 NE Hwy 99E • P.O. Box 589 • Aurora, OR 97002 • (503) 678-6007 • FAX: (503) 678-6011

**JURISDICTIONAL WETLAND
DELINEATION
FOR**

22870 Weatherhill Road
West Linn, Oregon

Prepared for

Bob Schultz
22870 Weatherhill LLC
22870 Weatherhill Road
West Linn, OR 97068

Prepared by

Cari L Cramer
Of
Schott and Associates, Inc.

Date:

November 2018

Project # 2637

TABLE OF CONTENTS

DEPARTMENT OF STATE LANDS COVER FORM.....	1
(A) LANDSCAPE SETTING AND LAND USE	1
(B) SITE ALTERATIONS	1
(C) PRECIPITATION DATA AND ANALYSIS	1
** WATER YEAR AVERAGE THROUGH THE MONTH OF SEPTEMBER.	2
(D) SITE SPECIFIC METHODS.....	2
(E) DESCRIPTION OF ALL WETLANDS AND OTHER NON-WETLAND WATERS.....	2
(F) DEVIATION FROM LWI OR NWI	3
(G) MAPPING METHOD	3
(H) ADDITIONAL INFORMATION	3
NONE	3
(I) RESULTS AND CONCLUSIONS.....	3
(J) DISCLAIMER.....	4
APPENDIX A: MAPS	5
APPENDIX B: DATA FORMS.....	12
APPENDIX C: GROUND LEVEL PHOTOGRAPHS	13
APPENDIX D: REFERENCES.....	14

LIST OF FIGURES

FIGURE 1. LOCATION MAP	6
FIGURE 2. TAX MAP.....	7
FIGURE 3. LWI MAP	8
FIGURE 4. SOIL SURVEY MAP.....	9
FIGURE 5. AERIAL PHOTOGRAPH	10
FIGURE 6. WETLAND MAP.....	11

(A) Landscape Setting and Land Use

The 2.56 acre subject property is located at 22870 Weatherhill Road in West Linn, Hillsboro, Clackamas County, Oregon (T2S R1E Sec.35B TL405).

The property is entered from a driveway extending south from Weatherhill Road to the north. The site topography is terraced and south, southwest sloping. The northern half of the property is on the terrace and has one existing home and a barn located on the northwest portion of the property. A maintained landscape, dominated by lawn grasses and scattered ornamental and native trees, encompasses the house. The southern approximate half of the property is undeveloped with the exception of a few formed dirt trails. The northern 2/3rds of the southern half of the property contained large Oregon white oaks (*Quercus garryana*) with an understory of non-native grasses with some poison oak (*Toxicodendron diversilobum*), English ivy (*Hedera helix*) and Himalayan blackberry (*Rubus armeniacus*). The most southern third of the property was dominated by big leaf maple (*Acer macrophyllum*) with some Oregon ash (*Fraxinus latifolia*) in the overstory. The understory mainly consisted of Himalayan blackberry and English ivy with some beaked hazelnut (*Corylus cornuta*), vine maple (*Acer circinatum*), snowberry (*Symphoricarpos albus*) and holly (*Ilex sp.*). There is an open tract southwest of the site.

The surrounding area is residential.

(B) Site Alterations

There is a house and one barn on the northwest portion of the property. The northern half of the property has a vegetable garden and a maintained landscape.

(C) Precipitation Data and Analysis

The site was visited on September 13, 2018. Precipitation was recorded at 0.03 inches by the West Linn weather station on that day (accuweather.com). Total precipitation recorded in the two weeks prior to the site visit was 0.21 inches. Precipitation for the month of September through the 13th was 0.24 inches, all of which accumulated on the day of the site visit and the two days prior. Precipitation for July and August were below average range according to the Oregon City WETS table at 0% and 7% of average respectively. June precipitation was within average range at 66% of average. May was below average range at 8% of average according to the Oregon City WETS table. No WETS table is available for West Linn. Between October 1st 2017 and August 13, 2018 a total of 36.16" of precipitation was recorded. This is 79% percent of the water year average through the month of September.

Table 1. Precipitation Summary and WETS Averages

Month	2017-2018 Precipitation	WETS Average	WETS Range	Percent of Average
May	0.23	2.70	1.78-3.24	8
June	1.20	1.81	1.13-2.18	66
July	0	0.83	0.33-0.98	0
August	0.07	1.03	0.29-1.12	7
September*	0.24	1.85	0.94-2.20	13
Water Year**	36.16	45.99		79%

*Recorded precipitation through September 13, 2018 (43% of the month) compared with average for the entire month.

** Water Year average through the month of September.

(D) Site Specific Methods

Prior to visiting, site information was gathered, including recent and historical aerial photographs provided by Google Earth, the soil survey (NRCS web soil survey), the Local Wetland Inventory and National Wetland Inventory and the Water Resource Area (WRA) Map for West Linn. The USGS topography map was also reviewed prior to site visits.

Schott and Associates walked the subject property to assess the presence or absence of onsite wetlands and waters September 13, 2018. The *1987 Manual and Regional Supplement to the Corps of Engineers Delineation Manual: Western Mountains, Valleys, and Coast Region* were used to determine presence or absence of State of Oregon wetland boundaries and the Federal jurisdictional wetlands.

Sample plots were placed where geomorphic location or vegetation indicated the possibility of wetlands. For each sample plot, data on vegetation, hydrology and soils was collected, recorded in the field and later transferred to data forms (Appendix B). If a wetland was present paired plots were located in the adjacent upland to document the transition.

(E) Description of All Wetlands and Other Non-Wetland Waters

Based on soil, vegetation and hydrology data taken in the field no wetlands were delineated on site. The upland sample plots were within forested area in the southern half of the subject property and consisted of Oregon white oak with an understory of nonnative grasses such as tall fescue (*Schedonorus arundinaceus*) with some Himalayan blackberry, English ivy and poison oak (sp1) in the northern portion. Within the southern portion of the forested area at the lowest point (sp2) in the southwest corner, the overstory consisted of bigleaf maple with beaked hazelnut, Himalayan blackberry and ivy in the

understory. Near the southwest property boundary within a converging slope that is approximately 25' long and directing down slope southwest, where a stream was mapped on the LWI and WRA , sample plot 3 was taken at the lowest point. Vegetation consisted of Oregon ash, bigleaf maple, snowberry, vine maple, holly, sword fern, English ivy and Himalayan blackberry.

Soils were a 10YR3/3 and did not meet the hydric soil indicators in any of the sample plots and no hydrology was observed.

The WRA map showed an ephemeral drainage and the LWI showed a potential jurisdictional drainage that was mapped from approximately halfway up the property near the northwest property boundary angling south down slope, extending offsite through a tract directing southwest.

Onsite findings indicated an ephemeral drainage that started 25' up slope from the southwest property boundary. The ephemeral drainage was mainly bare and had no hydrology at the time of the site visit. Trace amounts of holly, English ivy and sword fern were growing within the drainage. The drainage extended offsite through a tract and was culverted under Crestview Drive. The drainage channel south of the site was less than 18" wide.

(F) Deviation from LWI or NWI

The Local Wetland Inventory (LWI) for the City of West Linn showed a drainage within the southern portion of the property starting near the northwest property line and directing south and off property at the southwest property line. Onsite findings did not show any indications of the drainage extending from half way up the property. The LWI corresponds only partially with onsite findings. The ephemeral drainage starts within converging slopes 25' northeast upslope of the southwest property boundary. The drainage angles down slope to the southwest extending off property through an offsite tract.

(G) Mapping Method

The sample plots and drainage boundary were flagged by Schott and Associates and surveyed by Emerio Design Professional Land Surveyor (PLS).

(H) Additional Information

None

(I) Results and Conclusions

Based on soil, vegetation and hydrology data taken in the field no wetlands were found onsite. One small ephemeral drainage was found onsite forming just north east of the

southwest property line. The drainage had bare ground. Just south of the site the drainage was less than 18 inches wide and looked like a recently formed erosion rill.

The LWI mapped a drainage starting upslope halfway up the property angling south and extending offsite at the southwest property line. Onsite findings located a much smaller ephemeral drainage starting approximately 25' upslope from the southwest property line. The drainage extended offsite southwest through a tract.

The NWI did not map any resource onsite or offsite bordering the subject property.

The soil survey map for Clackamas County mapped Saum silt loam on the entire property. Saum silt loam is not considered hydric.

The topographic map showed the property south, southwest sloping.

(J) Disclaimer

This report documents the investigation, best professional judgment and the conclusions of the investigator. It is correct and complete to the best of my knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State lands in accordance with OAR 141-090-0005 through 141-090-005.

Appendix A: Maps

Schott & Associates

Ecologists and Wetland Specialists

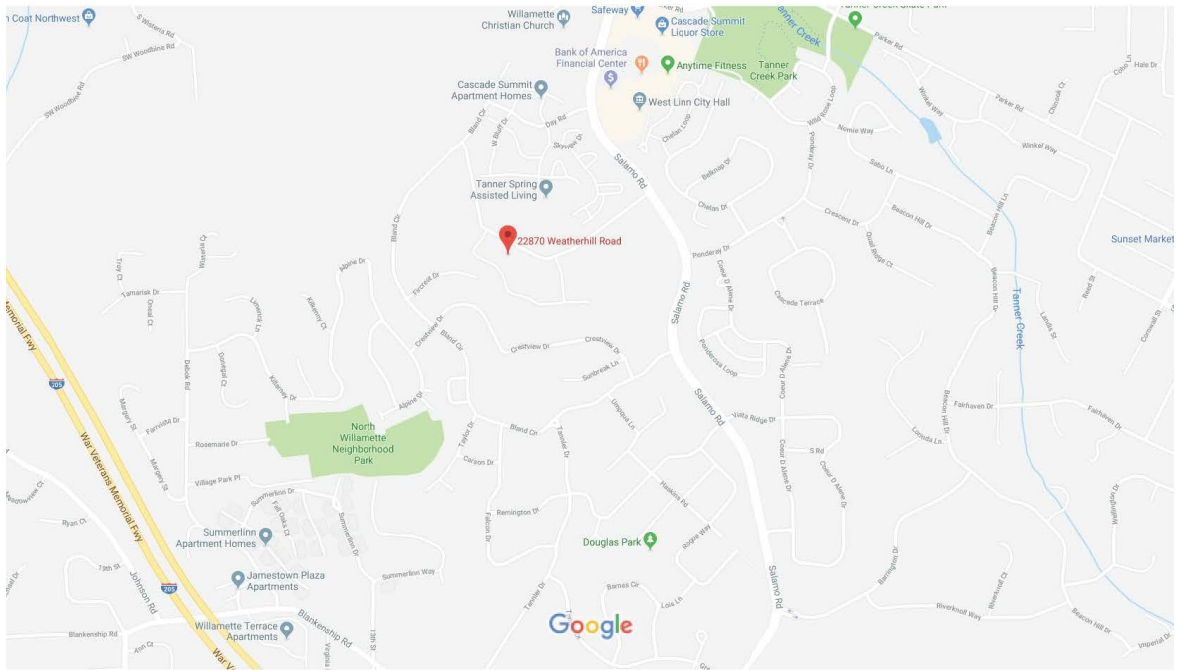
PO Box 589, Aurora, OR. 97002 • (503) 678-6007 • Fax (503) 678-6011

Page 5

S&A#:2637

22870 Weatherhill Rd - Google Maps

Google Maps 22870 Weatherhill Rd



Map data ©2018 Google 500 ft

google.com/maps/place/22870+Weatherhill+Rd,+West+Linn,+OR+97068/@45.3577601,-122.6489393,16z/data=!4m5!3m4!1s0x54957165ce0feb55:0x292c778d1811d453!8m2!3d45.:

FIGURE 1. SITE LOCATION MAP
22870 Weatherhill Road
S&A#2637

Schott & Associates
P.O. Box 589
Aurora, OR. 97002
503.678.6007

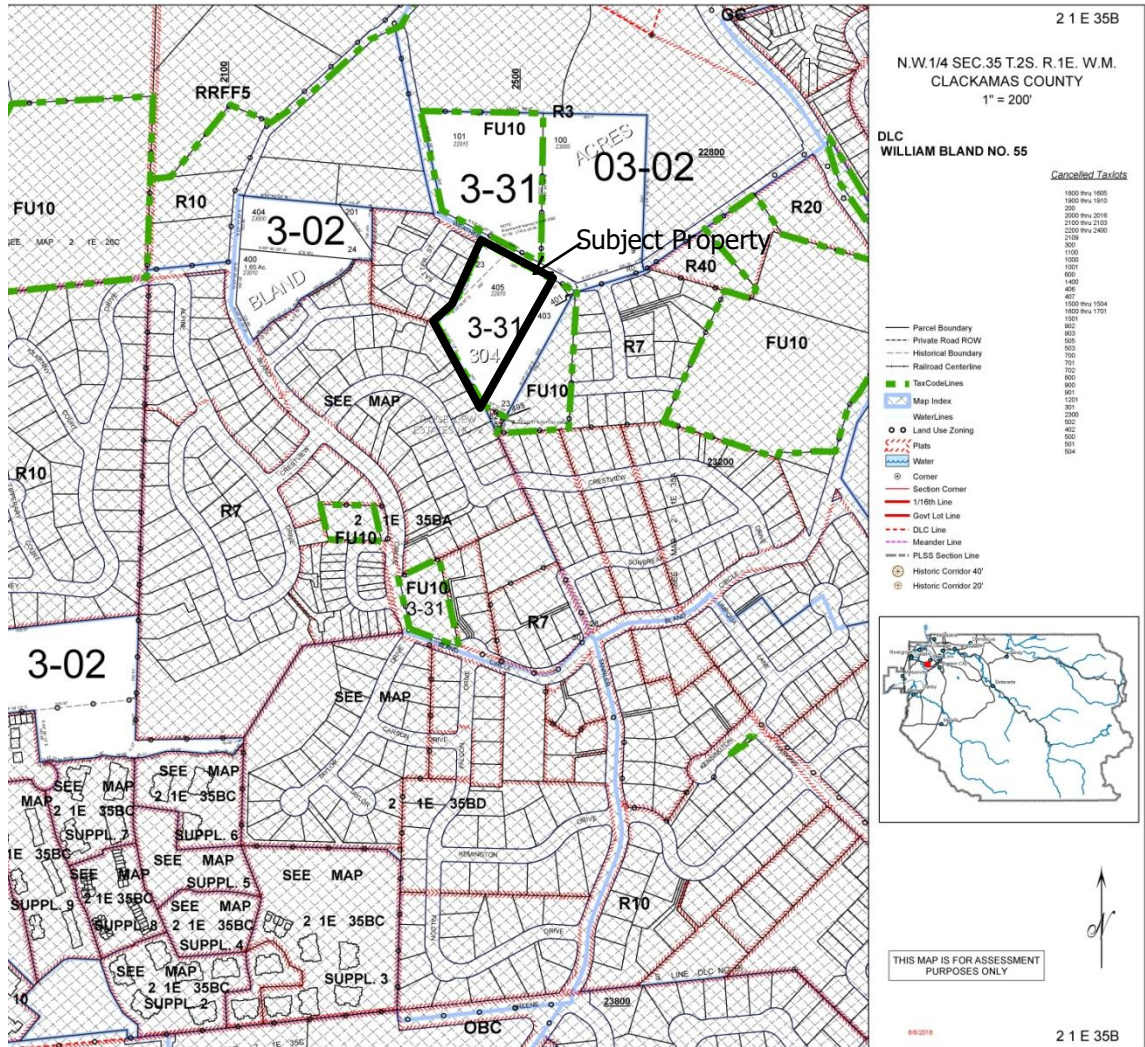


FIGURE 2. TAX MAP
22870 Weatherhill Road
S&A#2637

Schott & Associates
P.O. Box 589
Aurora, OR. 97002
503.678.6007

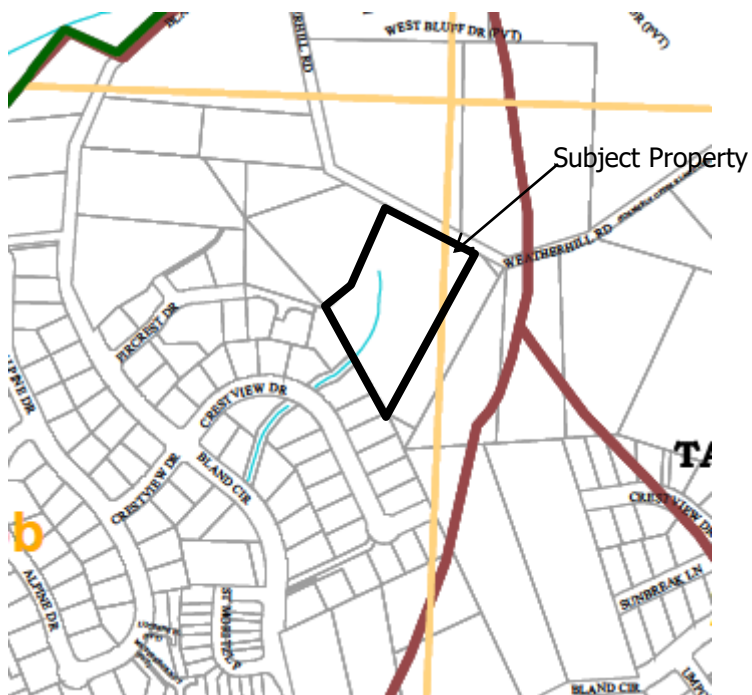
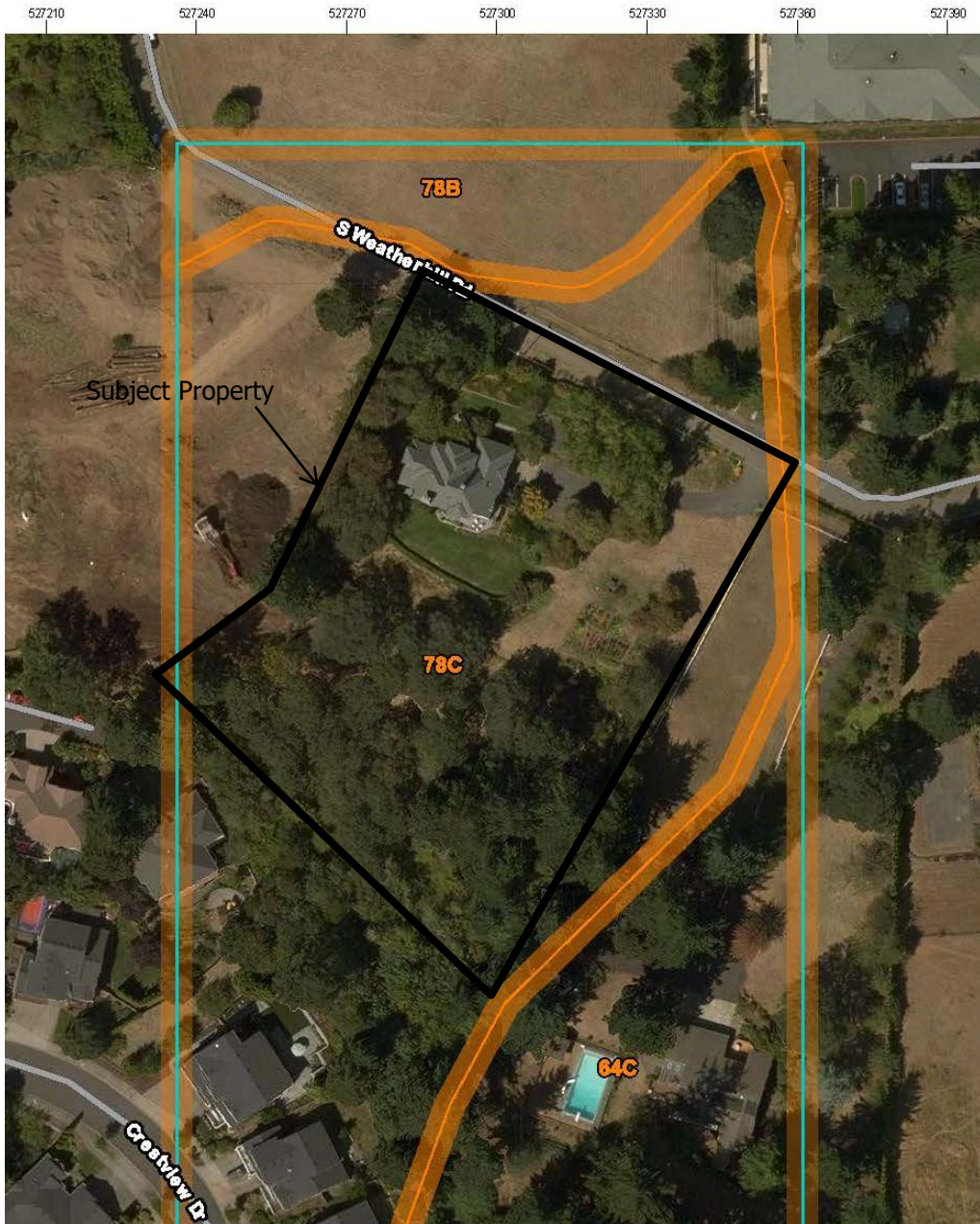


FIGURE 3.LWI MAP
22870 Weatherhill Road
S&A#2637

Schott & Associates
P.O. Box 589
Aurora, OR. 97002
503.678.6007

Soil Map—Clackamas County Area, Oregon



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
64C	Nekia silty clay loam, 8 to 15 percent slopes	1.4	20.9%
78B	Saum silt loam, 3 to 8 percent slopes	0.6	8.3%
78C	Saum silt loam, 8 to 15 percent slopes	4.8	70.8%
Totals for Area of Interest		6.8	100.0%

FIGURE 4. NRCS SOIL MAP
22870 Weatherhill Road
S&A#2637

Schott & Associates
P.O. Box 589
Aurora, OR. 97002
503.678.6007

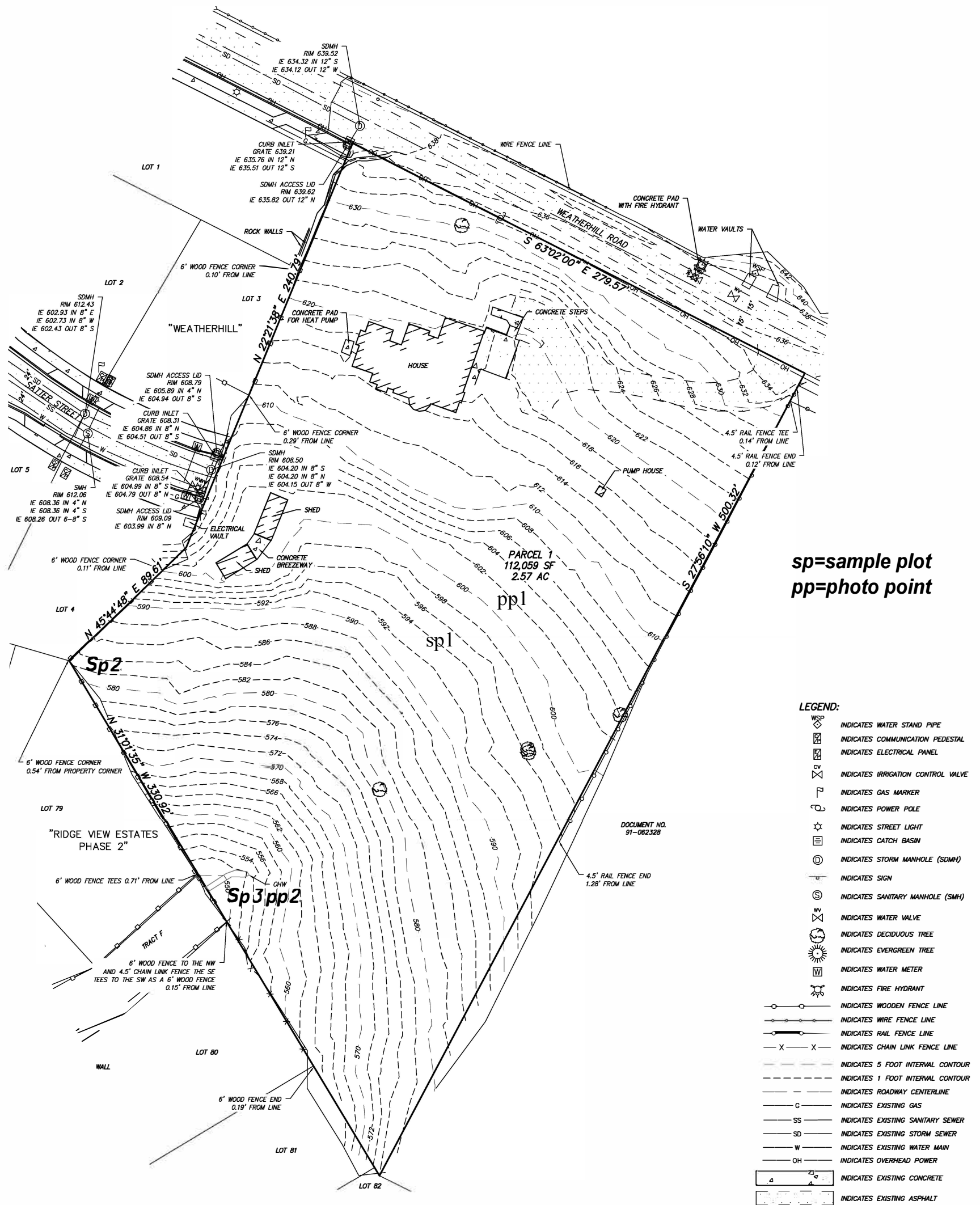


FIGURE 5. AERIAL PHOTOGRAPH-GOOGLE EARTH
22870 Weatherhill Road
S&A#2637

Schott & Associates
P.O. Box 589
Aurora, OR. 97002
503.678.6007

EXISTING CONDITIONS MAP

OF PORTION OF LOT 23,
 "BLAND ACRES" LOCATED IN THE
 NW 1/4 OF SECTION 35,
 T.2S., R.1E., W.M. CITY OF WEST LINN,
 CLACKAMAS COUNTY, OREGON

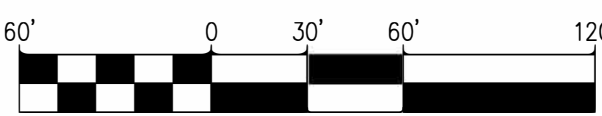


sp=sample plot
 pp=photo point

- LEGEND:**
- INDICATES WATER STAND PIPE
 - INDICATES COMMUNICATION PEDESTAL
 - INDICATES ELECTRICAL PANEL
 - INDICATES IRRIGATION CONTROL VALVE
 - INDICATES GAS MARKER
 - INDICATES POWER POLE
 - INDICATES STREET LIGHT
 - INDICATES CATCH BASIN
 - INDICATES STORM MANHOLE (SDMH)
 - INDICATES SIGN
 - INDICATES SANITARY MANHOLE (SMH)
 - INDICATES WATER VALVE
 - INDICATES DECIDUOUS TREE
 - INDICATES EVERGREEN TREE
 - INDICATES WATER METER
 - INDICATES FIRE HYDRANT
 - INDICATES WOODEN FENCE LINE
 - INDICATES WIRE FENCE LINE
 - INDICATES RAIL FENCE LINE
 - INDICATES CHAIN LINK FENCE LINE
 - INDICATES 5 FOOT INTERVAL CONTOUR
 - INDICATES 1 FOOT INTERVAL CONTOUR
 - INDICATES ROADWAY CENTERLINE
 - INDICATES EXISTING GAS
 - INDICATES EXISTING SANITARY SEWER
 - INDICATES EXISTING STORM SEWER
 - INDICATES EXISTING WATER MAIN
 - INDICATES OVERHEAD POWER
 - INDICATES EXISTING CONCRETE
 - INDICATES EXISTING ASPHALT

SURVEY NOTES:

THE DATUM FOR THIS SURVEY IS BASED UPON OREGON REAL-TIME GNSS NETWORK (ORGN). NAVD88.
 A TOPCON PS104B, TRIMBLE RS INSTRUMENTS WERE USED TO COMPLETE THIS SURVEY.
 BOUNDARIES WERE DRAWN PER PLAT AND MONUMENTS FOUND. NO PROPERTY CORNERS WERE SET IN THIS SURVEY.
 NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUESCENCE, ETC.
 THE UNDERGROUND UTILITIES AS SHOWN ON THIS MAP HAVE BEEN LOCATED FROM FIELD SURVEY OF ABOVE GROUND STRUCTURES AND AS MARKED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPROMISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR.
 NO TITLE REPORT WAS SUPPLIED OR USED IN THE PREPARATION OF THIS MAP. THERE MAY EXIST EASEMENTS, CONDITIONS, OR RESTRICTIONS, THAT COULD AFFECT THE TITLE OF THIS PROPERTY. NO ATTEMPT HAS BEEN MADE IN THIS SURVEY TO SHOW SUCH MATTERS THAT MAY AFFECT TITLE.



EMERIO
 Design

6445 SW FALLBROOK PLACE, SUITE 100
 BEAVERTON, OREGON 97008
 PH: (503) 746-8812
 FAX: (503) 639-9592

OCTOBER 15, 2018

JOB: 463-003

Appendix B: Data Forms

Schott & Associates

Ecologists and Wetland Specialists

PO Box 589, Aurora, OR. 97002 • (503) 678-6007 • Fax (503) 678-6011

Page 12

S&A#:2637

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: 22870 Weatherhill Road City/County: West Linn, Clackamas Sampling Date: September 13, 2018
 Applicant/Owner: 22870 Weatherhill LLC State: OR Sampling Point: Sp1
 Investigator(s): Cari Cramer Section, Township, Range: Sec 35B 2S 1E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2-5
 Subregion (LRR): A Lat: 45.359 Long: -122.652 Datum: DD
 Soil Map Unit Name: Saum silt Loam NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology Significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology Naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks:					

VEGETATION – Use scientific names of plants.

Stratum	Plot size	Absolute % Cover	Dominant Species?	Indicator Status	Notes
Tree Stratum (Plot size: <u>30'</u>)					
1. <u>Quercus garryana</u>		80	X	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B)
2. _____					
3. _____					
4. _____					
		<u>80</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>5'</u>)					
1. <u>Rubus armeniacus</u>		5	x	FAC	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <input type="checkbox"/> x 1 = <input type="checkbox"/> FACW species <input type="checkbox"/> x 2 = <input type="checkbox"/> FAC species <input type="checkbox"/> x 3 = <input type="checkbox"/> FACU species <input type="checkbox"/> x 4 = <input type="checkbox"/> UPL species <input type="checkbox"/> x 5 = <input type="checkbox"/> Column Totals: <input type="checkbox"/> (A) <input type="checkbox"/> (B) Prevalence Index = B/A = <input type="checkbox"/>
2. _____					
3. _____					
4. _____					
5. _____					
		<u>5</u> = Total Cover			
Herb Stratum (Plot size: <u>5'</u>)					
1. <u>Schedonorus arundinaceus</u>		60	X	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>60</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>5'</u>)					
1. <u>Hedera helix</u>		5	X	FACU	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <u>Toxicodendron diversilobum</u>		5	X	FAC	
		<u>10</u> = Total Cover			
% Bare Ground in Herb Stratum		<u>25</u>			

Remarks:

SOIL

Sampling Point:

1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Table with 8 columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Row 1: 0-16, 10YR3/3, 100, SiL.

1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils3:

- ___ Histosol (A1) ___ Sandy Redox (S5) ___ 2 cm Muck (A10)
___ Histic Epipedon (A2) ___ Stripped Matrix (S6) ___ Red Parent Material (TF2)
___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1) ___ Very Shallow Dark Surface (TF12)
___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2) ___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3)
___ Thick Dark Surface (A12) ___ Redox Dark Surface (F6)
___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7)
___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F8)

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes [] No [x]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- ___ Surface Water (A1) ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2) ___ Salt Crust (B11) ___ Drainage Patterns (B10)
___ Saturation (A3) ___ Aquatic Invertebrates (B13) ___ Dry-Season Water Table (C2)
___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) ___ Saturation Visible on Aerial Imagery (C9)
___ Sediment Deposits (B2) ___ Oxidized Rhizospheres along Living Roots (C3) ___ Geomorphic Position (D2)
___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Shallow Aquitard (D3)
___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ FAC-Neutral Test (D5)
___ Iron Deposits (B5) ___ Stunted or Stressed Plants (D1) (LRR A) ___ Raised Ant Mounds (D6) (LRR A)
___ Surface Soil Cracks (B6) ___ Other (Explain in Remarks) ___ Frost-Heave Hummocks (D7)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)

Field Observations:

Surface Water Present? Yes [] No [x] Depth (inches): _____
Water Table Present? Yes [] No [x] Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes [] No [x] Depth (inches): _____

Wetland Hydrology Present? Yes [] No [x]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: 22870 Weatherhill Road City/County: West Linn, Clackamas Sampling Date: September 13, 2018
 Applicant/Owner: 22870 Weatherhill LLC State: OR Sampling Point: Sp2
 Investigator(s): Cari Cramer Section, Township, Range: Sec 35B 2S 1E
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2
 Subregion (LRR): A Lat: 45.359 Long: -122.652 Datum: DD
 Soil Map Unit Name: Saum silt Loam NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology Significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology Naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Stratum	Plot size	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30'</u>)						
1. <u><i>Acer macrophyllum</i></u>		50	X	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)	
2. <u><i>Fraxinus latifolia</i></u>		5		FACW		
3. _____						
4. _____						
		55	= Total Cover		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <input type="checkbox"/> x 1 = <input type="checkbox"/> FACW species <input type="checkbox"/> x 2 = <input type="checkbox"/> FAC species <input type="checkbox"/> x 3 = <input type="checkbox"/> FACU species <input type="checkbox"/> x 4 = <input type="checkbox"/> UPL species <input type="checkbox"/> x 5 = <input type="checkbox"/> Column Totals: <input type="checkbox"/> (A) <input type="checkbox"/> (B) Prevalence Index = B/A = <input type="checkbox"/>	
Sapling/Shrub Stratum (Plot size: <u>5'</u>)						
1. <u><i>Rubus armeniacus</i></u>		15	x	FAC		
2. <u><i>Corylus cornuta</i></u>		5	X	FACU		
3. _____						
4. _____						
		20	= Total Cover			
Herb Stratum (Plot size: <u>5'</u>)						
1. _____					Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____						
3. _____						
4. _____						
5. _____						
6. _____						
7. _____						
8. _____						
9. _____						
10. _____						
11. _____						
			= Total Cover			
Woody Vine Stratum (Plot size: <u>5'</u>)						
1. <u><i>Hedera helix</i></u>		80	X	FACU	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
2. _____						
		80	= Total Cover			
% Bare Ground in Herb Stratum		20				

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: 22870 Weatherhill Road City/County: West Linn, Clackamas Sampling Date: September 13, 2018
 Applicant/Owner: 22870 Weatherhill LLC State: OR Sampling Point: Sp3
 Investigator(s): Cari Cramer Section, Township, Range: Sec 35B 2S 1E
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR): A Lat: 45.359 Long: -122.652 Datum: DD
 Soil Map Unit Name: Saum silt Loam NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology Significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology Naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

Remarks: At bottom of ephemeral drainage

VEGETATION – Use scientific names of plants.

Stratum	Plot size	Absolute % Cover	Dominant Species?	Indicator Status	Notes
Tree Stratum (Plot size: <u>30'</u>)					
1. <u>Acer macrophyllum</u>		30	X	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)
2. <u>Fraxinus latifolia</u>		20	x	FACW	
3. _____					
4. _____					
		50 = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>5'</u>)					
1. <u>Rubus armeniacus</u>		5		FAC	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <input type="checkbox"/> x 1 = <input type="checkbox"/> FACW species <input type="checkbox"/> x 2 = <input type="checkbox"/> FAC species <input type="checkbox"/> x 3 = <input type="checkbox"/> FACU species <input type="checkbox"/> x 4 = <input type="checkbox"/> UPL species <input type="checkbox"/> x 5 = <input type="checkbox"/> Column Totals: <input type="checkbox"/> (A) <input type="checkbox"/> (B) Prevalence Index = B/A = <input type="checkbox"/>
2. <u>Symphoricarpos albus</u>		20	X	FACU	
3. <u>Acer circinatum</u>		5			
4. <u>Ilex aquifolium</u>		20	X	FACU	
5. _____					
		50 = Total Cover			
Herb Stratum (Plot size: <u>5'</u>)					
1. <u>Polysticum munitum</u>		3		FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		3 = Total Cover			
Woody Vine Stratum (Plot size: <u>5'</u>)					
1. <u>Hedera helix</u>		10	X	FACU	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____					
		10 = Total Cover			
% Bare Ground in Herb Stratum <u>80</u>					

Remarks:

SOIL

Sampling Point:

3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR3/3	100					SiL	Roots at 12"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C: Ground Level Photographs

Schott & Associates

Ecologists and Wetland Specialists

PO Box 589, Aurora, OR. 97002 • (503) 678-6007 • Fax (503) 678-6011

Page 13

S&A#:2637



Photo Point 1 facing west, northwest



Photo Point 1 facing southwest



Photo Point 1 facing east, southeast



Photo Point 1 facing north, northeast



Photo Point 2 facing northeast

Photo Point 2 facing north, northwest





Photo Point 2 facing southwest

Appendix D: References

- Environmental Laboratory, 1987. *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, MS.
- Environmental Laboratory, 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (Version 2.0)*, Wetlands Regulatory Assistance Program ERDC/EL TR-10-3 U.S. Army Engineer Research and Development Center. Vicksburg, MS.
- Federal Interagency Committee for Wetland Delineation, 1989. *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S.D.A. Soil Conservation Service, Washington, D.C. Cooperative technical publication. 138 pp.
- Federal Register, 1980. 40 CFR Part 230: Section 404(b)(1), *Guidelines for Specification of Disposal Sites of Dredged or Fill Material*, Vol. 45, No. 249, pp. 85352-85353, U.S. Govt. Printing Office, Washington, D.C.
- Federal Register, 1982. Title 33, *Navigation and Navigable Waters; Chapter II, Regulatory Programs of the Corps of Engineers*. Vol. 47, No. 138, p. 31810, U.S. Govt. Printing Office, Washington, D.C.
- Federal Register, 1986. 33 CFR Parts 320 through 330, *Regulatory Programs of the Corps of Engineers; Final Rule*, Vol. 51, No. 219 pp. 41206-41259, U.S. Govt. Printing Office, Washington, D.C.
- Kollmorgen Corporation, 1975. *Munsell Soil Color Charts*. Macbeth Division of Kollmorgen Corporation, Baltimore, MD.
- U.S. Army Corps of Engineers – Cold Regions Research and Engineering Laboratory (CRREL). 2014. *Western Mountains, Valleys and Coast 2016 Regional Wetland Plant List*
- U.S. Department of Agriculture, Web Soil Survey *Soil Survey of Clackamas County, Oregon*. U.S.D.A. Soil Conservation Service, Washington, D.C.,



December 16, 2018

Planning and Building
City of West Linn
22500 Salamo Road #1000
West Linn, Oregon 97068

Re: Arborist Report and Tree Preservation Plan for the Walling Circle Two-Lot Partition
West Linn, Oregon
Project No. MHA18060 22870 Weatherhill Road Subdivision

Please find enclosed the Arborist Report and Tree Preservation Plan for the 12-lot subdivision project located at 22870 Weatherhill Road in West Linn, Oregon. Please contact us if you have questions or need any additional information.

Respectfully,
Morgan Holen & Associates, LLC

A handwritten signature in black ink that reads "Morgan E. Holen". The signature is written in a cursive, flowing style.

Morgan E. Holen, Member
ISA Board Certified Master Arborist, PN-6145B
ISA Tree Risk Assessment Qualified
Forest Biologist

Morgan Holen
—&— ASSOCIATES LLC



Consulting Arborists and Urban Forest Management

971.409.9354
3 Monroe Parkway, Suite P 220
Lake Oswego, Oregon 97035
morgan.holen@comcast.net

Arborist Report and Tree Preservation Plan

12-Lot Subdivision
22870 Weatherhill Road
West Linn, Oregon

December 16, 2018

Table of Contents

Purpose	1
Scope of Work and Limitations.....	1
Tree Inventory	1
Tree Preservation Plan	3
Tree Protection Standards	4
Before Construction	4
During Construction	4
Post Construction	5

12-Lot Subdivision – 22870 Weatherhill Road, West Linn, Oregon
Arborist Report and Tree Preservation Plan
December 16, 2018

MHA18060

Purpose

This Arborist Report and Tree Preservation Plan for the 12-lot subdivision at 22870 Weatherhill Road in West Linn, Oregon, is provided pursuant to City of West Linn Community Development Code Chapter 55, Municipal Code Sections 8.500 and 8.600 and the West Linn Tree Technical Manual. This report describes the existing trees located on the project site, as well as recommendations for tree removal, retention and protection. This report is based on observations made by International Society of Arboriculture (ISA) Board Certified Master Arborist (PN-6145B) and Qualified Tree Risk Assessor Morgan Holen during a site visit conducted on September 26, 2018, an on-site meeting with the City's Arborist Mike Perkins that same day and subsequent coordination with Emerio Design.

Scope of Work and Limitations

Morgan Holen & Associates, LLC, was contracted by Schultz Development Group to collect tree inventory data for individual trees measuring six inches and larger in diameter and to develop an arborist report and tree preservation plan for the project in coordination with Emerio Design. The project proposes demolition of an existing house and development of a 12-lot subdivision and associated improvements. Site plans were provided by Emerio Design illustrating the location of existing trees and potential construction impacts.

Visual Tree Assessment (VTA) was performed on individual trees located across the site. VTA is the standard process whereby the inspector visually assesses the tree from a distance and up close, looking for defect symptoms and evaluating overall condition and vitality of individual trees. Trees were evaluated in terms of general condition and potential construction impacts. Dense blackberries and invasive vegetation limited visual assessment for a number of trees, particularly along the southern boundary. Following the inventory fieldwork, we coordinated with Emerio Design to discuss potentially significant trees as determined by the City's Arborist during our on-site meeting and tree protection recommendations. The location of individual trees is shown on site plan drawings and tree numbers correspond with the enclosed tree data.

The client may choose to accept or disregard the recommendations contained herein, or seek additional advice. Neither this author nor Morgan Holen & Associates, LLC, have assumed any responsibility for liability associated with the trees on or adjacent to this site.

Tree Inventory

The existing trees are scattered across the site, primarily around the existing home and driveway and in a relatively natural stand spreading across the southern half of the site. In all, 124 existing trees were inventoried including 18 different species, four trees located off-site in a utility easement connecting the site to Crestview Drive and one tree located along the southern boundary adjacent to 2265 Crestview Drive. Table 1 provides a summary of the count of inventoried trees by species. The enclosed tree data provides a complete description of the individual trees.

Table 1. Count of Trees by Species – 22870 Weatherhill Drive.

Common Name	Species Name	Count	Percent*
apple	<i>Malus</i> spp.	1	1%
bigleaf maple	<i>Acer macrophyllum</i>	20	16%
cherry	<i>Prunus</i> spp.	1	1%
Coral Bark maple	<i>Acer palmatum</i> 'Sango-kaku'	1	1%
Douglas-fir	<i>Pseudotsuga menziesii</i>	23	19%
English hawthorn	<i>Crataegus monogyna</i>	8	6%
English holly	<i>Ilex aquifolium</i>	1	1%
incense cedar	<i>Calocedrus decurrens</i>	1	1%
madrone	<i>Arbutus menziesii</i>	2	2%
Oregon ash	<i>Fraxinus latifolia</i>	1	1%
Oregon white oak	<i>Quercus garryana</i>	40	32%
paper birch	<i>Betula papyrifera</i>	2	2%
river birch	<i>Betula nigra</i>	6	5%
Scouler's willow	<i>Salix scouleriana</i>	13	10%
spruce	<i>Picea</i> spp.	1	1%
sweet cherry	<i>Prunus avium</i>	1	1%
western redcedar	<i>Thuja plicata</i>	2	2%
apple	<i>Malus</i> spp.	1	1%
Total		124	100%

*Percent total does not sum to 100% due to rounding.

Oregon white oak (*Quercus garryana*) is most common, accounting for 40 of the 124 inventoried trees, most of which are growing in the relatively natural stand throughout the southern half of the property. A mix of bigleaf maple (*Acer macrophyllum*), Scouler's willow (*Salix scouleriana*), and Douglas-fir (*Pseudotsuga menziesii*), primarily scattered among the oaks in the stand, account for a total of 56 of the 124 inventoried trees. Non-native and invasive English hawthorn (*Crataegus monogyna*), English holly (*Ilex aquifolium*) and sweet cherry (*Prunus avium*) account for 10 of the 124 inventoried trees. Besides one Oregon ash (*Fraxinus latifolia*) and two madrones (*Arbutus menziesii*) which are also located within the stand, the other 15 inventoried trees are a mix of species planted for landscaping purposes.

Trees located around the existing house and driveway have been well-maintained over time. The relatively natural stand of trees has been generally unmaintained but is in generally good condition as a whole although individual trees in the stand are highly variable in terms of general condition and structure due to natural stand dynamics. Trees planned for retention within the stand should be reassessed at the time of site clearing in terms of exposure from adjacent tree removal and at the time individual plot plans are developed in terms of potential homebuilding impacts; if trees are determined to no longer be suitable for preservation the City may require additional documentation and separate tree removal permits in accordance with Municipal Code Sections 8.500 and 8.600.

Significant trees were determined by the City Arborist during the September 26, 2018 on-site meeting. Based on evaluation of the size, type, location, health, and long-term survivability of the individual and stand grown trees, 45 trees were identified as being significant including 10 Douglas-firs in fair and good condition measuring 18- to 47-inches in diameter and 35 Oregon white oaks in fair and good condition measuring 6- and 19-inches in diameter or having multiple codominant stems.

Tree Preservation Plan

We coordinated with Emerio Design to discuss trees suitable for preservation in terms of potential construction impacts for site improvements associated with the proposed subdivision including rough grading, underground utilities, an extension of Satter Street east to west through the site, and improvements along Weatherhill Road. Table 2 provides a summary of the number of non-significant and significant trees by treatment consistent with the proposed tree preservation plan.

Table 2. Number of Inventoried Trees by Treatment and Significance.

Treatment	Non-Significant	Significant	Total*
Remove	68	38	106 (85%)
Retain	11	7	18 (15%)
Total	79 (64%)	45 (36%)	124 (100%)

Of the 124 inventoried trees, 68 non-significant trees are planned for removal including two trees located within the utility easement near Crestview Drive and one tree located along the southern property boundary. The boundary tree, #20807, is an 8-inch diameter bigleaf maple with very poor structure that is not suitable for retention with exposure from the proposed removal of adjacent on-site tree #20806, a 15-inch diameter bigleaf maple deemed hazardous due to advanced trunk decay with a hollow from 0- to 3-feet along the north face of the trunk. Removal of the boundary tree will require written authorization from the adjacent property owner prior to its removal. If the neighbor is not willing to consent to removal of this tree following coordination by the owner of the development site, it may remain with the understanding that it has been recommended for removal by a qualified arborist and liability associated with its retention will fall on the neighboring owner.

Eleven non-significant stand grown trees are planned for retention, including another two trees located off-site in the utility easement. Per the West Linn Tree Technical Manual, each tree to be retained shall have a designated tree protection zone equal to ½-foot radius per caliper inch of tree diameter. The standard tree protection zone is depicted on the tree preservation plan for each of these trees.

Of the 45 significant trees, 38 are planned for removal for the purposes of site development and seven are planned for retention. Chapter 55 of the West Linn Community Development Code requires that up to 20% of the significant tree canopy area on a site be preserved. Emerio Design calculated the total significant tree area based on the dripline plus 10-feet to be 50,265-square feet of which 10,687-square feet are planned for retention. This equates to 21.3% which exceeds the City’s standard.

Chapter 55 also requires that significant trees be protected at the dripline plus 10-feet. The tree protection plan identifies the significant trees and depicts protection fencing at this distance where feasible. Minor encroachments limited to the 10-foot dripline buffer are shown where a planter box is proposed southwest of tree #20712 on lot 8 and where planter boxes and underground utilities and manholes are proposed north and northwest of tree #20788 in the rear of lots 10 and 11 and north of tree #20798 in the rear of lot 12. Adequate protection is possible and no critical root impacts are anticipated because the entire dripline area will continue to be protected. A more significant encroachment is proposed north of tree #20491 at lot 1 where a retaining wall is needed for sidewalk improvements along Weatherhill Road. In this case, protection fencing is reduced to the limits of work which does encroach into the dripline area. However, the proposed block wall is located in an area that is already disturbed with existing asphalt roadway and a rockery wall. Demolition of the rockery wall and excavation of up to one foot to install the new block wall should be performed under arborist supervision and with hand tools only. Tree protection standards are provided in the next section and should be copied onto the tree preservation plan drawing.

Tree Protection Standards

Trees to be protected will need special consideration to assure their protection during construction. In addition, trees preserved during site improvement work may require further evaluation in terms of individual plot plans for homebuilding which may result in additional tree protection recommendations or additional tree removal if adequate protection is not possible. It is the Client's responsibility to implement this plan and to monitor the construction process. Tree protection measures include:

Before Construction

- 1. Tree Protection Zone.** The standard Tree Protection Zone (TPZ) for each tree to be protected shall be established $\frac{1}{2}$ -foot radius per inch of trunk diameter for non-significant trees and at the dripline plus 10-feet for significant trees. Where infrastructure (planter box, underground utilities and manholes, block wall) must be installed closer to the tree(s), protection fencing may be established within the TPZ in accordance with the tree protection plan.
- 2. Protection Fencing.** Protection fencing shall be installed as depicted on the tree preservation plan before demolition, grubbing, grading, or construction begins. All trees to be retained shall be protected by six-foot-high chain link fences installed per plan. Protection fencing shall be secured to two-inch diameter galvanized iron posts, driven to a depth of a least two feet, placed no further than 10-feet apart. If fencing is located on pavement, posts may be supported by an appropriate grade level concrete base. Protection fencing shall remain in place until final inspection of the project permit, or in consultation with the Project Arborist.
- 3. Signage.** An 8.5x11 –inch sign stating, "WARNING: Tree Protection Zone," shall be displayed on each protection fence at all times.
- 4. Designation of Cut Trees.** Trees to be removed shall be clearly marked with construction flagging, tree-marking paint, or other methods approved in advanced by the Project Arborist. Trees shall be carefully removed so as to avoid either above or below ground damage to those trees to be preserved. Roots of stumps that are adjacent to retained trees shall be carefully severed prior to stump extraction.
- 5. Preconstruction Conference.** The Project Arborist shall be on site to discuss methods of tree removal and tree protection prior to any construction.
- 6. Verification of Tree Protection Measures.** Prior to commencement of construction, the Project Arborist shall verify in writing to the City Arborist that tree protection fencing has been satisfactorily installed.

During Construction

- 7. Tree Protection Zone Maintenance.** The protection fencing shall not be moved, removed, or entered by equipment except under direction of the Project Arborist, in coordination with the City Arborist.
- 8. Storage of Material or Equipment.** The contractor shall not store materials or equipment within the TPZ.

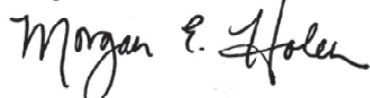
- 9. Activity Adjacent to Tree #20491.** The Contractor shall be responsible for coordinating with the Project Arborist in a timely manner prior to working beneath the dripline of tree #20491. Demolition of the existing rockery wall and excavation for construction of the proposed block wall shall be performed under the direct on-site supervision of the Project Arborist. Work shall be performed by hand and with hand tools only. Excavation shall not exceed 1-foot depth. The Project Arborist shall monitor and document work, assess exposed roots in terms of quantity, size, condition, and proximity to trunk, direct pruning of non-critical roots, and provide recommendations for the protection of critical roots if any are encountered. Each site visit during construction shall be documented by the Project Arborist in an inspection report submitted to the Client, Contractor and City Arborist.
- 10. Crown Pruning.** Crown pruning may be needed to provide overhead clearance and removed dead and defective branches for safety. Pruning should be performed in accordance with the West Linn Tree Technical Manual, Best Management Practices for Tree Pruning and ANSI A300 Standards, and conducted by a Qualified Tree Service.
- 11. Quality Assurance.** The contractor shall be responsible for coordinating with the Project Arborist as needed, in a timely manner, prior to construction activities that could encroach on protected trees. The Project Arborist should monitor construction activities and progress on-call and provide written reports to the developer and the City following each site visit.

Post Construction

- 12. Final Report.** After the project has been completed, the Project Arborist shall provide a final report to the Client and City Arborist. The final report shall include concerns about any trees negatively impacted during construction, and describe the measures needed to maintain and protect the remaining trees for a minimum of two years after project completion.

Please contact us if you have questions or need any additional information. Thank you for choosing Morgan Holen & Associates, LLC, to provide consulting arborist services for the Walling Circle partition project.

Thank you,
Morgan Holen & Associates, LLC



Morgan E. Holen, Member
ISA Board Certified Master Arborist, PN-6145B
ISA Tree Risk Assessment Qualified
Forest Biologist

Enclosures: MHA18060 22870 Weatherhill Road – Tree Data 9-26-18 Rev. 12-16-18

No.	Type	Common Name	Species Name	DBH*	C-Rad^	Cond#	Comments	Sig?	Treatment
20432	Dec	Coral Bark maple	<i>Acer palmatum</i> 'Sango-kaku'	3x5	12	F	Storm damage, codominant stem failure, open wound	No	Remove
20433	Dec	English hawthorn	<i>Crataegus monogyna</i>	4x10	18	F	Invasive species, moderate structure, crown decay	No	Remove
20434	Dec	English hawthorn	<i>Crataegus monogyna</i>	7x8	25	G	Invasive species	No	Remove
20435	Dec	river birch	<i>Betula nigra</i>	23	30	F	Moderate structure, twig dieback	No	Remove
20436	Dec	river birch	<i>Betula nigra</i>	17	16	F	Moderate structure, twig dieback	No	Remove
20437	Dec	river birch	<i>Betula nigra</i>	16	0	D	Mostly dead	No	Remove
20438	Dec	river birch	<i>Betula nigra</i>	15	28	F	Moderate structure, twig dieback	No	Remove
20439	Dec	river birch	<i>Betula nigra</i>	14	16	F	Moderate structure, twig dieback	No	Remove
20440	Dec	river birch	<i>Betula nigra</i>	18	16	F	Moderate structure, twig dieback	No	Remove
20441	Dec	cherry	<i>Prunus</i> spp.	14	18	G	Well-maintained	No	Remove
20454	Dec	English hawthorn	<i>Crataegus monogyna</i>	4x8	18	F	Invasive species, moderate structure, crown decay	No	Remove
20459	Dec	English hawthorn	<i>Crataegus monogyna</i>	5,6,2x8	18	G	Invasive species	No	Remove
20460	Dec	English hawthorn	<i>Crataegus monogyna</i>	5,2x8	14	G	Invasive species	No	Remove
20487	Con	incense cedar	<i>Calocedrus decurrens</i>	22	12	G	Some crown asymmetry	No	Remove
20488	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	30	26	F	Topped	No	Remove
20489	Dec	bigleaf maple	<i>Acer macrophyllum</i>	13,21	26	F	Moderate structure, previously topped, some trunk decay	No	Remove
20491	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	34	22	G	Spur leader, no major defects	Yes	Retain
20492	Dec	paper birch	<i>Betula papyrifera</i>	11	10	G		No	Remove
20493	Dec	paper birch	<i>Betula papyrifera</i>	2x10	16	G		No	Remove
20494	Dec	English hawthorn	<i>Crataegus monogyna</i>	5x10	20	G	Invasive species	No	Remove
20495	Dec	English hawthorn	<i>Crataegus monogyna</i>	3x12	20	G	Invasive species	No	Remove
20584	Dec	Oregon white oak	<i>Quercus garryana</i>	12,16	34	G	Dense group	Yes	Remove
20585	Dec	Oregon white oak	<i>Quercus garryana</i>	6	22	F	Dense group	Yes	Remove
20586	Dec	Oregon white oak	<i>Quercus garryana</i>	19	34	G	Dense group	Yes	Remove

No.	Type	Common Name	Species Name	DBH*	C-Rad^	Cond#	Comments	Sig?	Treatment
20587	Dec	Oregon white oak	<i>Quercus garryana</i>	16	34	G	Dense group	Yes	Remove
20605	Dec	Scouler's willow	<i>Salix scouleriana</i>	2x12	16	F	Previous leader failure, dead and broken branches	No	Remove
20606	Dec	English hawthorn	<i>Crataegus monogyna</i>	14	13	F	Invasive species	No	Remove
20607	Dec	sweet cherry	<i>Prunus avium</i>	22	22	F	Invasive species, moderate structure, dead and broken branches	No	Remove
20647	Dec	Oregon white oak	<i>Quercus garryana</i>	2x18	20	G	Oak grove	Yes	Remove
20648	Dec	Oregon white oak	<i>Quercus garryana</i>	14	16	F	Oak grove, few dead and broken branches	Yes	Remove
20649	Dec	Oregon white oak	<i>Quercus garryana</i>	12	15	G	Oak grove	Yes	Remove
20650	Dec	Oregon white oak	<i>Quercus garryana</i>	11,14, 16	20	G	Oak grove	Yes	Remove
20651	Dec	Oregon white oak	<i>Quercus garryana</i>	14,16	30	G	Oak grove	Yes	Remove
20656	Dec	Oregon white oak	<i>Quercus garryana</i>	8,3x14, 17	28	G	Oak grove, hornets nest, old steel brace compartmentalized in trunk	Yes	Remove
20658	Dec	Oregon white oak	<i>Quercus garryana</i>	3x10	14	G	Oak grove	Yes	Remove
20659	Dec	Oregon white oak	<i>Quercus garryana</i>	14	20	G	Oak grove, one-sided to south	Yes	Remove
20660	Dec	Oregon white oak	<i>Quercus garryana</i>	8	16	G	Oak grove	Yes	Remove
20661	Dec	Oregon white oak	<i>Quercus garryana</i>	8,10, 14,15	20	G	Oak grove	Yes	Remove
20662	Dec	Oregon white oak	<i>Quercus garryana</i>	5,2x6, 11	12	F	Oak grove, very upright high live crown, small diameter stems are completely dead	Yes	Remove
20663	Dec	Oregon white oak	<i>Quercus garryana</i>	5,6, 7,14,18	15	F	Oak grove, moderate one-sided crown structure	Yes	Remove
20665	Dec	Oregon white oak	<i>Quercus garryana</i>	10,2x12, 18,20	30	G	Oak grove, few dead and broken branches	Yes	Remove
20666	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	24	G	Codominant crown class, ivy up lower trunk	Yes	Remove
20667	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	28	24	G	Codominant crown class, ivy up lower trunk	Yes	Remove
20670	Dec	Oregon white oak	<i>Quercus garryana</i>	8,10,12	16	G	Oak grove	Yes	Remove

No.	Type	Common Name	Species Name	DBH*	C-Rad^	Cond#	Comments	Sig?	Treatment
20671	Dec	Oregon white oak	<i>Quercus garryana</i>	4x12	18	G	Oak grove	Yes	Remove
20672	Dec	Oregon white oak	<i>Quercus garryana</i>	14	20	F	One-sided to west	Yes	Remove
20673	Dec	Oregon white oak	<i>Quercus garryana</i>	14	30	F	One-sided to north, few dead and broken branches	Yes	Remove
20674	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	36	24	G	Codominant crown class, few dead and broken branches	Yes	Remove
20675	Dec	apple	<i>Malus spp.</i>	8,10	20	P	Very poor structure, dieback, decay	No	Remove
20677	Dec	Oregon white oak	<i>Quercus garryana</i>	14	14	F	Oak grove, one-sided to north, few dead and broken branches	Yes	Remove
20678	Dec	Oregon white oak	<i>Quercus garryana</i>	8,9,14	18	G	Oak grove, few dead and broken branches	Yes	Remove
20679	Dec	Oregon white oak	<i>Quercus garryana</i>	12	12	F	Oak grove, few dead and broken branches, ivy up lower trunk	Yes	Remove
20680	Dec	Oregon white oak	<i>Quercus garryana</i>	12	12	F	Oak grove, few dead and broken branches, ivy up lower trunk	Yes	Retain
20681	Dec	Oregon white oak	<i>Quercus garryana</i>	14	12	F	Oak grove, few dead and broken branches, ivy up lower trunk	Yes	Retain
20682	Dec	Oregon white oak	<i>Quercus garryana</i>	7,2x10	16	G	Oak grove, some ivy	Yes	Remove
20683	Dec	Oregon white oak	<i>Quercus garryana</i>	10,12,14	20	F	Oak grove, few dead and broken branches	Yes	Remove
20686	Dec	Oregon white oak	<i>Quercus garryana</i>	6,8	10	F	Oak grove, few dead and broken branches	Yes	Remove
20687	Dec	Oregon white oak	<i>Quercus garryana</i>	6	10	F	Oak grove, few dead and broken branches	Yes	Remove
20688	Dec	Oregon white oak	<i>Quercus garryana</i>	10	10	F	Oak grove, few dead and broken branches	Yes	Remove
20689	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	26	22	F	Codominant crown class, broken top, new leaders	Yes	Remove
20691	Dec	Oregon ash	<i>Fraxinus latifolia</i>	7	14	F	Moderate structure	No	Remove
20694	Dec	Oregon white oak	<i>Quercus garryana</i>	16,18	18	G	Oak grove	Yes	Remove
20696	Dec	Oregon white oak	<i>Quercus garryana</i>	2x14	12	P	Half dead	No	Remove
20699	Dec	Oregon white oak	<i>Quercus garryana</i>	10	5	P	Oak grove, suppressed	No	Remove

No.	Type	Common Name	Species Name	DBH*	C-Rad^	Cond#	Comments	Sig?	Treatment
20700	Dec	Oregon white oak	<i>Quercus garryana</i>	14	12	P	Oak grove, severe ivy infestation, small live crown	No	Remove
20704	Dec	Oregon white oak	<i>Quercus garryana</i>	2x14	16	G	Oak grove	Yes	Remove
20705	Dec	Oregon white oak	<i>Quercus garryana</i>	16	16	G	Oak grove	Yes	Remove
20709	Dec	madrone	<i>Arbutus menziesii</i>	16	14	F	Crown dieback, trunk decay	No	Retain
20712	Dec	Oregon white oak	<i>Quercus garryana</i>	18	16	G	Oak grove, ivy up lower trunk	Yes	Retain
20714	Dec	Scouler's willow	<i>Salix scouleriana</i>	4x8	12	F	Inaccessible	No	Retain
20715	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	12	F	Inaccessible	No	Retain
20716	Dec	Scouler's willow	<i>Salix scouleriana</i>	12	12	F	Inaccessible	No	Retain
20717	Dec	Scouler's willow	<i>Salix scouleriana</i>	10	12	F	Inaccessible	No	Remove
20719	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	12	F	Inaccessible	No	Remove
20722	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	12	F	Inaccessible	No	Retain
20728	Dec	bigleaf maple	<i>Acer macrophyllum</i>	3x20	24	F	Moderate structure, additional codominant stem failed in past and has advanced decay, remaining stems are mostly one-sided to east	No	Retain
20734	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	12	F	Inaccessible	No	Retain
20735	Dec	bigleaf maple	<i>Acer macrophyllum</i>	10	12	F	Inaccessible	No	Retain
20741	Dec	Scouler's willow	<i>Salix scouleriana</i>	14	10	F	Inaccessible	No	Remove
20744	Dec	bigleaf maple	<i>Acer macrophyllum</i>	7	12	F	Poor structure	No	Remove
20745	Dec	Scouler's willow	<i>Salix scouleriana</i>	16	8	P	History of branch failure, crown decay, trunk decay with hollow	No	Remove
20747	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	16	F	Poor structure	No	Remove
20748	Dec	English holly	<i>Ilex aquifolium</i>	8	8	F	Invasive species	No	Remove
20749	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	8	F	Poor structure	No	Remove
20750	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	14	F	Codominant crown class, old broken top	No	Remove
20751	Dec	bigleaf maple	<i>Acer macrophyllum</i>	10	16	F	Poor structure	No	Remove
20753	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	16	14	F	Codominant crown class, ivy	No	Remove
20754	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	7	3	P	Suppressed, mostly dead	No	Remove

No.	Type	Common Name	Species Name	DBH*	C-Rad^	Cond#	Comments	Sig?	Treatment
20761	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	14	G	Ivy up trunk, codominant crown class	Yes	Remove
20766	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	12	10	F	Codominant crown class, some ivy	No	Remove
20767	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	14	F	Pistolbutt, sweep in upper trunk	No	Remove
20768	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	19	14	F	One-sided to south, sweep in upper trunk	No	Remove
20769	Dec	Oregon white oak	<i>Quercus garryana</i>	16,20	12	F	Codominant stems with seam, dead and broken branches, crown decay, upright crown	No	Remove
20770	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	20	15	F	Old broken top, forked leaders, twig dieback	No	Remove
20771	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	16	14	F	Codominant crown class	No	Remove
20774	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	12	10	F	Codominant crown class, ivy up trunk	No	Remove
20775	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	16	8	F	Codominant crown class, ivy up trunk	No	Remove
20776	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	10	6	P	Suppressed, extensive ivy	No	Remove
20779	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	16	F	Very poor structure	No	Remove
20780	Dec	bigleaf maple	<i>Acer macrophyllum</i>	2x6	10	F	Very poor structure	No	Remove
20781	Dec	bigleaf maple	<i>Acer macrophyllum</i>	10	10	F	Very poor structure	No	Remove
20782	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	10	F	Very poor structure	No	Remove
20785	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	47	26	G	Forked leaders	Yes	Retain
20788	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	36	28	G	Limited assessment	Yes	Retain
20793	Con	Scouler's willow	<i>Salix scouleriana</i>	14	8	P	Multiple leader failures, vigorous sprouting	No	Remove
20794	Dec	bigleaf maple	<i>Acer macrophyllum</i>	9	16	F	Poor structure	No	Retain
20795	Dec	bigleaf maple	<i>Acer macrophyllum</i>	2x6	10	P	Very poor structure	No	Remove
20796	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	12	F	Poor structure	No	Remove
20797	Dec	bigleaf maple	<i>Acer macrophyllum</i>	7	14	F	Poor structure	No	Remove
20798	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	23	18	G	Limited assessment	Yes	Retain
20802	Dec	bigleaf maple	<i>Acer macrophyllum</i>	16	18	G		No	Remove
20805	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	8	6	P	Suppressed, growing into 20806	No	Remove
20806	Dec	bigleaf maple	<i>Acer macrophyllum</i>	15	16	P	Advanced trunk decay with hollow 0-3' north face, poor crown structure	No	Remove

No.	Type	Common Name	Species Name	DBH*	C-Rad^	Cond [#]	Comments	Sig?	Treatment
20807	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	14	P	Boundary tree, very poor structure, not suitable for retention with exposure from removal of adjacent hazard tree 20806	No	Remove with adjacent owner's consent
20808	Dec	madrone	<i>Arbutus menziesii</i>	15	18	P	Crown difficult to assess but advanced basal decay	No	Remove
20834	Dec	Scouler's willow	<i>Salix scouleriana</i>	18	12	F	Off-site in utility easement, inaccessible	No	Retain
20835	Dec	Scouler's willow	<i>Salix scouleriana</i>	18	12	F	Off-site in utility easement, inaccessible	No	Retain
20849	Con	western redcedar	<i>Thuja plicata</i>	6	6	G	Off-site in utility easement, young tree	No	Remove
20850	Con	western redcedar	<i>Thuja plicata</i>	6	6	G	Off-site in utility easement, young tree	No	Remove
20900	Dec	bigleaf maple	<i>Acer macrophyllum</i>	8	12	P	Very poor structure	No	Remove
20921	Dec	bigleaf maple	<i>Acer macrophyllum</i>	9,12	16	F	Poor structure, trunk decay	No	Remove
30001	Con	spruce	<i>Picea spp.</i>	8	8	G		No	Remove
30002	Dec	Oregon white oak	<i>Quercus garryana</i>	7,9,11	14	P	Low vigor, dieback	No	Remove
30003	Con	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	24	G	Codominant crown class, few dead and broken branches	Yes	Remove

***DBH** is tree diameter measured at breast height, 4.5-feet above the ground level (inches); codominant trunks splitting below DBH are measured individually and DBH is reported as the sum of each stem.

^C-Rad is the average crown radius measured in feet.

#Cond is an arborist assigned rating to generally describe the condition of individual trees as follows- **D**ead; **P**oor; **F**air; **G**ood; or **E**xcellent condition.

Sig? asks whether or not individual trees are considered potentially significant, either Yes (likely significant) or No (not considered significant).