

**DEVELOPMENT REVIEW APPLICATION**

For Office Use Only		
STAFF CONTACT <b>Chris Myers</b>	PROJECT NO(S). <b>MIP-22-01/WAP-22-01/MISC-22-06/WRG-22-01</b>	PRE-APPLICATION NO. <b>PA-22-01, 02</b>
NON-REFUNDABLE FEE(S) <b>\$500</b>	REFUNDABLE DEPOSIT(S) <b>\$2,800 + \$1,700 + 1,050 + 1,850 = \$7,900</b>	TOTAL

**Type of Review** (Please check all that apply):

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

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.

<b>Site Location/Address:</b> 1310 9th St. (South of 1340 9th St.) 1220 9th St	Assessor's Map No.:	3-1E-2AC
	Tax Lot(s):	300
	Total Land Area:	49,128 S.F.

**Brief Description of Proposal:**

Partition property into three parcels for one existing home and the construction of two new single-family detached homes.

**Applicant Name:** (please print) **Icon Construction & Development, LLC** Phone: (503) 657-0406  
**Address:** 1969 Willamette Falls Dr., Suite 260 Email: darren@iconconstruction.net  
**City State Zip:** West Linn, OR 97068

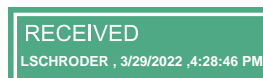
**Owner Name** (required): (please print) **Same as applicant** Phone:  
**Address:** Email:  
**City State Zip:**

**Consultant Name:** (please print) **Rick Givens, Planning Consultant** Phone: 503-351-8204  
**Address:** 18680 Sunblaze Dr. Email: rickgivens@gmail.com  
**City State Zip:** Oregon City, OR 97045

- 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 decision may be reversed on appeal. The permit approval will not be effective until the appeal period has expired.
- The City accepts electronic (.pdf) land use applications and project submissions from applicants. Applicants should submit this form and supporting documents through the [Submit a Land Use Application](https://westlinnoregon.gov/planning/submit-land-use-application) web page:  
<https://westlinnoregon.gov/planning/submit-land-use-application>

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.

Applicant's signature \_\_\_\_\_ Date 3-28-22 Owner's signature (required) \_\_\_\_\_ Date 3/28/22

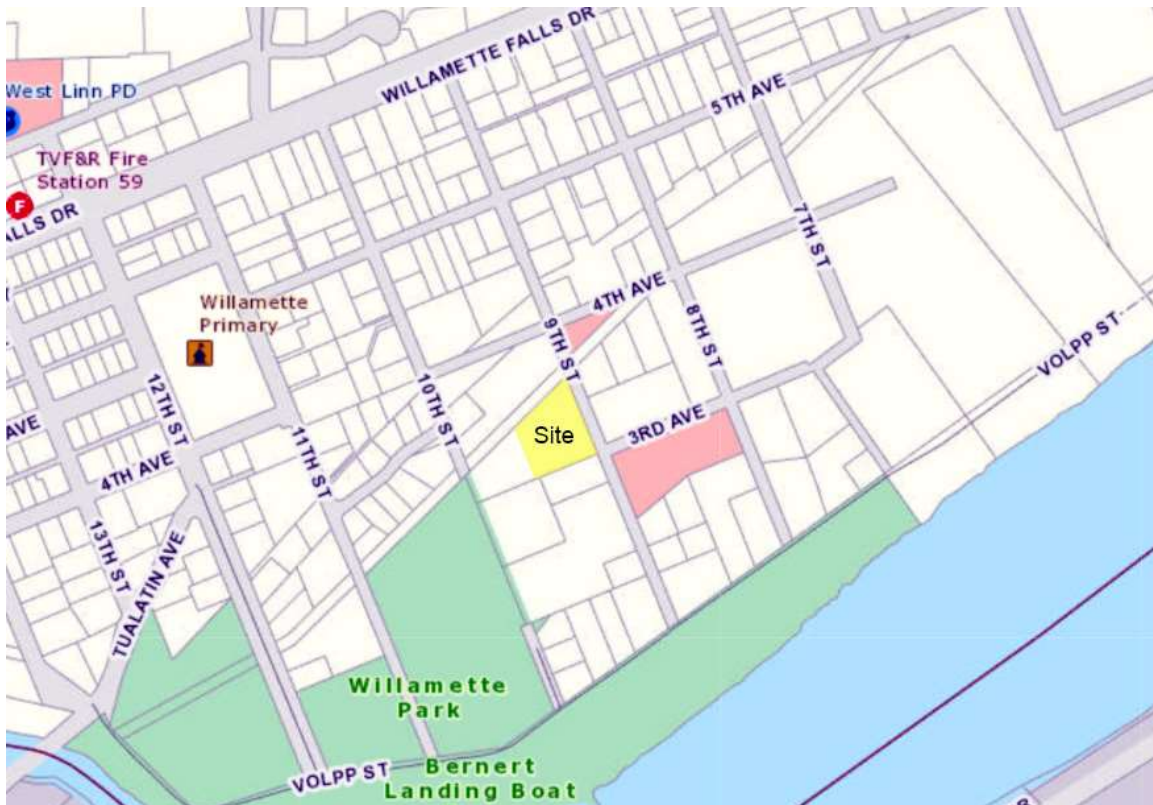


## Application Narrative

1220 9th St, West Linn

### Icon Construction & Development, LLC

**Proposal:** This application requests approval of a three-lot partition, including WRG and WRAP reviews, for property located at 1220 9th St, West Linn in West Linn. The property is located at the intersection of 9<sup>th</sup> Street and 3rd Avenue in the Willamette area of West Linn. It is presently developed with one single-family home and a large outbuilding. The subject property is 49,208 square feet in area and is zoned R-10. The Clackamas County Assessor's description of the property is the eastern portion of Tax Lot 31E02AC000300. Tax Lot 300 is comprised of two legal platted lots of record: Tract C and Tract D. The partition is located on Tract D. Tract C will be developed separately with one single-family residence and is not a part of the partition application. It is included, however, with the HCA application relating to wetlands on the property.



Vicinity Map





The proposed development conforms to the applicable provisions of the CDC as follows:

**CHAPTER 11 SINGLE-FAMILY RESIDENTIAL DETACHED, R-10**

**11.030 PERMITTED USES**

*The following are uses permitted outright in this zoning district*

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

Comment: The purpose of this application is to divide the property into three parcels to accommodate two new single family detached residential units plus the existing single-family home. This use is permitted use by this section. The criterion is met.

**11.070 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:*

1. *The minimum lot size shall be 10,000 square feet for a single-family detached unit.*

Comment: Parcel 1 will be 18,840 S.F. sq. ft. in area. Parcel 2 contains 13,606 S.F., and Parcel 3 is 16,682 S.F. This criterion is met.

2. *The minimum front lot line length or the minimum lot width at the front lot line shall be 35 feet.*

Comment: Parcel 1 has approximately 168 feet of frontage on 9<sup>th</sup> Street, Parcel 2 has 110 feet of frontage on 9<sup>th</sup> Street. Parcel 3 is accessed via an easement from 9<sup>th</sup> Street, but is approximately 87 feet in width at the front lot line. This standard is met.

3. *The average minimum lot width shall be 50 feet.*

Comment: Parcel 1 has an average lot width of 137 feet. Parcel 2 has a lot width of 110 feet. Parcel 3 measures approximately 79 feet wide at the midpoint of the lot depth. This standard is met.

4. *Repealed by Ord. 1622.*

5. *Except as specified in CDC 25.070(C)(1) through (4) for the Willamette Historic District, the minimum yard dimensions or minimum building setback area from the lot line shall be:*

- a. *For the front yard, 20 feet; except for steeply sloped lots where the provisions of CDC 41.010 shall apply.*
- b. *For an interior side yard, seven and one-half feet.*
- c. *For a side yard abutting a street, 15 feet.*
- d. *For a rear yard, 20 feet.*

Comment: The property is not in the Willamette Historic District. The existing home on Parcel 1 has a front yard of 51', a minimum interior side yard of 7.5' adjacent to Parcel 2 and a rear yard of approximately 23'. Setbacks for the homes to be constructed on both new parcels will be reviewed at the time of building permit application, but will conform to these standards.

6. *The maximum building height shall be 35 feet, except for steeply sloped lots in which case the provisions of Chapter 41 CDC shall apply.*

Comment: The existing home on Parcel 1 has a height of approximately 32', as shown on the Existing Conditions Map. Building height for the new homes will be reviewed with the building permit, but will not exceed the 35-foot height standard.

7. *The maximum lot coverage shall be 35 percent.*

Comment: Lot coverage for the existing home on Parcel 1 is approximately 2,014 sq. ft. counting the house and garage footprints. This equates to about 10.7% of the lot area. Lot coverage for the home to be built on the Parcels 2 and 3 will comply with the 35% maximum standard, as will be demonstrated at the time of building permit application.

8. *The minimum width of an accessway to a lot which does not abut a street or a flag lot shall be 15 feet.*

Comment: The access easement serving Parcel 3 is 27 feet in width. This standard is met.

9. *The 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.*

Comment: Compliance with the floor area ratio standard will be reviewed with the building permits.

10. *The sidewall provisions of Chapter 43 CDC shall apply.*

Comment: Compliance of the new homes will be reviewed with the building permit applications.

## **Chapter 85 GENERAL PROVISIONS (Land Division)**

### **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.

Comment: No new streets are proposed. Parcels 1 and 2 front on 9<sup>th</sup> Street and Parcel 3 takes access via a private driveway easement from 9<sup>th</sup> Street. Per the pre-application

conference notes, 9<sup>th</sup> Street will require half-street local street improvements along the property's frontage. A 6-foot right-of-way dedication is shown on the Tentative Plan. This will bring the half-street right-of-way width to 26 feet, which is consistent with local street standards. The improvements to 4<sup>th</sup> Avenue will be consistent with a 20' alley width, as required in the pre-app notes. No additional right-of-way is required as the existing 40' width exceeds alley standards.

**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.*

Comment: As previously mentioned, the development pattern in this area is already established. No changes to the existing block pattern are proposed.

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.*

Comment: Same as for B1, above.

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).*

*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.*

Comment: The proposed lots are consistent with the dimensional standards of the R-10 zone, as discussed under the standards for that zone. The parcels provide reasonable building sites for new single-family detached homes. The lots are deep enough on their north-south axes to provide for the opportunity to orient the homes for solar access. The lots do not include portions of existing streets.

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

Comment: See discussion of Chapter 48, below.

5. 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.*

Comment: No double-frontage parcels are proposed.

6. 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.*

Comment: The proposed side lot line between the two parcels runs at a 90-degree angle to 9<sup>th</sup> Street.

7. 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:*

Comment: Not applicable. No flag lots are proposed. Setbacks will continue to comply with zoning requirements, as discussed above under R-10 standards.

8. 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.*

Comment: None of the parcels contain enough area to allow for a future lot split. ,

C. Pedestrian and bicycle trails.

Comment: Not applicable. No pedestrian or bicycle trails exist or are planned in this area.

D. Transit facilities.

Comment: There is no Tri-Met bus service in this area so there is no need for transit facilities.

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.

Comment: No significant grading activities other than normal excavation for building foundations are proposed on the building sites.

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.

Comment: Any fill materials will be appropriate as required by this section.

3. If areas are to be graded (more than any four-foot cut or fill), compliance with CDC 85.170(C) is required.

Comment: All grading will be less than four feet of cut or fill.

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.

Comment: Only minor grading required for the building foundations is proposed at this time.

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.

Comment: Not applicable. Type I land is defined as slopes greater than 35% grade over 50% or more of a site. The subject property does not contain slopes over 35% grade.

6. Per the submittals required by CDC 85.170(C)(3), the applicant must demonstrate that the proposed methods of rendering known or potential hazard sites safe for development, including proposed geotechnical remediation, are feasible and adequate to prevent landslides or other damage to property and safety. The review authority may impose conditions, including limits on type or intensity of land use, which it determines are necessary to mitigate known risks of landslides or property damage.



Comment: There are no known broad general geologic hazards in this area.

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.*
- 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.*

Comment: Not applicable. No portion of the property is in excess of 12 percent grade.

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.*

Comment: Not applicable. No slopes over 50 percent grade exist on the site.

F. Water.

Comment: Water service to the new parcels will be provided from the existing water line in 9<sup>th</sup> Street, as shown on the Preliminary Utility Plan.

G. Sewer.

Comment: Sewer service to the new parcels will be provided to from the existing 8" sewer line in 9<sup>th</sup> Street, as shown on the Preliminary Utility Plan.

H. (Deleted)

I. Utility easements.

Eight-foot-wide public utility easements will be provided along both 9<sup>th</sup> Street, consistent with City standards, as shown on the Tentative Plan and Preliminary Utility Plan. An access and utility easement is provided along the private driveway serving Parcel 3. No other utility easements are necessary.

J. Supplemental provisions.

1. Wetland and natural drainageways.

Comment: There are wetlands and a drainageway on the north side of the subject property. Please refer to the wetlands report prepared by Schott & Associates for discussion of compliance with applicable portions of CDC Chapter 34.

2. Willamette and Tualatin Greenways.

Comment: The subject property is located within the Willamette or Tualatin Greenway areas. See discussion of applicable portions of CDC Chapter 28 in the Schott & Associates report included with this application.

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

Comment: Street trees will be provided with the new home construction, per City standards.

4. Lighting.

Comment: There is an existing street light on 9<sup>th</sup> Street near the north boundary of the property.

5. Dedications and exactions.

Comment: No additional right-of-way dedication is proposed along 9<sup>th</sup> Street. A public utility easement will be provided along the existing right-of-way per City standards.

6. Underground utilities.

Comment: The existing powerline on 9<sup>th</sup> Street is overhead, but because the existing neighborhood is substantially built out with overhead lines and there is little opportunity to underground the rest of the existing electrical system. PGE is supportive of keeping the lines above ground because of the wetness of soils in this area. Andrew Rollstin, a Design Project Manager with PGE has stated in an email to Darren Gusdorf or Icon Construction & Development, "*PGE agrees with the developer and the City of West Linn, that leaving these lines overhead and in the current state they are in now, is most appropriate. There is no way to completely seal underground facilities in a wetland which means any vaults, conduits, and electrical cable would constantly be submerged in water which is not desired.*"

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.*

Comment: The proposed partition contains three lots and, therefore, is exempt from the minimum density standard.

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.*

Comment: The subject property is not in the R-2.1 or R-3 zones so this provision does not apply.

9. Heritage trees/significant tree and tree cluster protection.

Comment: There are no heritage trees on the site. There are also no significant clusters of trees on the property.

## **Chapter 48 - ACCESS, EGRESS AND CIRCULATION**

### **48.025 ACCESS CONTROL**

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. (See also CDC 55.125, Traffic Impact Analysis.)*

Comment: Because of the small size of this project and its location on local streets, the City did not require a traffic impact analysis. The two new dwellings will generate approximately 20 trips per day.

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.*

Comment: There are no existing curb cuts that need to be closed.

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” to the developer/subdivider.*

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.*

Comment: All three parcels will have access from a local public street.

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).*

Comment: Not applicable. The property does not front on an arterial street.

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.*

Comment: Not applicable. No double-frontage lots are proposed.

6. Access spacing.

a. *The access spacing standards found in Chapter 8 of the adopted Transportation System Plan (TSP) shall be applicable to all newly established public street intersections and non-traversable medians.*

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

Comment: No new public street intersections are proposed. Existing driveway curb cuts will be used to access both parcels. No new accesses are proposed.

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.*

Comment: Only one access point per lot is proposed.

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.*

Comment: The driveway serving Parcel 3 will also provide access to Tract C and to a residence to the south of this site. An access easement will be provided.



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. (Ord. 1635 § 25, 2014; Ord. 1636 § 33, 2014)

Comment: The street block pattern in this area of the city is already established. No new blocks are proposed. Because of floodplain and wetlands limitations, there is no opportunity to create new streets.

#### **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.*

Comment: No arterial streets are present in this area. Access will be from a local street.

- 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.*

Comment: All lots take access from 9<sup>th</sup> Street, a local street, and will have driveway access complying with these standards.

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.*

Comment: Portions of the home to be built on Parcel 3 will be farther than 150 feet from 9<sup>th</sup> Street. The applicant will comply with requirements of the Fire Chief.

- 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.*

Comment: Not applicable. The shared access driveways will serve a total of 3 lots.

- E. Access and/or service drives for multi-family dwellings shall be fully improved with hard surface pavement:*

Comment: Not applicable. No multi-family development is proposed.

- 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.*

Comment: The driveways will not require on-site maneuvering.

- 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.*

Comment: No access to arterials or collectors is proposed.

- 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.*

Comment: Not applicable. The site is not a multi-family site and there is no opportunity for a street connection due to existing development.

- I. Gated accessways to residential development other than a single-family home are prohibited. (Ord. 1408, 1998; Ord. 1463, 2000; Ord. 1513, 2005; Ord. 1584, 2008; Ord. 1590 § 1, 2009; Ord. 1636 § 34, 2014)*

Comment: No gated accessways are proposed.

#### **48.040 MINIMUM VEHICLE REQUIREMENTS FOR NON-RESIDENTIAL USES**

Comment: No non-residential uses are proposed so this section does not apply.

#### **48.050 ONE-WAY VEHICULAR ACCESS POINTS**

*Where a proposed parking facility plan indicates only one-way traffic flow on the site, it shall be accommodated by a specific driveway serving the facility, and the entrance drive shall be situated closest to oncoming traffic, and the exit drive shall be situated farthest from oncoming traffic.*

Comment: No one-way traffic flow patterns are proposed.

#### **48.060 WIDTH AND LOCATION OF CURB CUTS AND ACCESS SEPARATION REQUIREMENTS**

- A. Minimum curb cut width shall be 16 feet.*

Comment: Curb cuts will be designed to comply with this minimum.

- 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.*

Comment: No new curb cuts in excess of 36 feet will be proposed.

- 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.*

Comment: 9<sup>th</sup> Street is a local street. Driveways will be located so as to conform to these standards.

- 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.*

Comment: The 30-foot minimum curb cut separation onto the local streets serving these lots will be maintained.

- E. *A rolled curb may be installed in lieu of curb cuts and access separation requirements.*

Comment: Not proposed.

- 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.*

Comment: One curb cut per lot will be provided, consistent with this provision.

- G. *Adequate line of sight pursuant to engineering standards should be afforded at each driveway or accessway.*

Comment: There are no obstructions to sight distance at the driveway location.

## **CHAPTER 55 DESIGN REVIEW**

### **55.100 APPROVAL STANDARDS – CLASS II DESIGN REVIEW**

Design Review is only applicable to significant trees as cross referenced by CDC 85.200(J) (9).

#### *B. Relationship to the natural and physical environment.*

- 1 The buildings and other site elements shall be designed and located so that 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.*
  
- 2. All heritage trees, as defined in the municipal code, all trees and clusters of trees ("cluster" is defined as three or more trees with overlapping driplines; however, native oaks need not have an overlapping dripline) that are considered significant by the City Arborist, either individually or in consultation with certified arborists or similarly qualified professionals, based on accepted arboricultural standards including consideration of their size, type, location, health, long term survivability, and/or numbers, shall be protected pursuant to the criteria of subsections (B)(2)(a) through (f) of this section. (...)*

Comment: There are no heritage trees on the property so the provisions of Chapter 55 do not apply.

## **Chapter 92, required improvements**

### *92.010 PUBLIC IMPROVEMENTS FOR ALL DEVELOPMENT*

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

- E. Surface drainage and storm sewer system. A registered civil engineer shall prepare a plan and statement which shall be supported by factual data and comply with the standards for the improvement of public and private drainage systems located in the West Linn Public Works Design Standards. (...)*

Comment: The applicant proposes to install storm water detention facility adjacent to the private driveway. Raingardens are anticipated to be used for the homes to be built on the new parcels. Please refer to the Preliminary Utility Plan and Storm Report for more details.



## **Chapter 27, Flood Management Areas**

*27.020 Applicability - A flood management area permit is required for all development in the Flood Management Area Overlay Zone. The standards that apply to flood management areas apply in addition to State or federal restrictions governing floodplains or flood hazard areas.*

Response: A small portion of the subject property is indicated on FEMA flood hazard maps as being located within the 100-year floodplain of the Willamette River. This area affects the access driveway near 9<sup>th</sup> Street and a small area in the southerly portion of Parcel 2. The approved plans for the construction of the driveway and the homes on land to the south of the subject property call for the finished grade of the driveway to isolate the floodplain area of the subject property from the balance of the 100-year floodplain. This will effectively remove the subject property from the floodplain as no flood waters will be able to access the lower portion of this site. For this reason, the subject property is no longer subject to the provisions of the Flood Management Area Overlay Zone.



Preliminary Storm Analysis  
1220 9th Street  
West Linn, Oregon

## NARRATIVE

### Site Conditions:

This is a property on the westerly side to 9<sup>th</sup> street in West Linn, containing approximately 1.1 acres. There is one residential house on the property which will remain with the proposed redevelopment into a 3-lot partition. The property slopes both north and south from the existing house. The USDA web site finds the soil to be 19 Cloquato silt loam, hydrologic group B and Wapato silty clay loam, hydrologic group D. The majority of the property is in the hydrologic group B area and on site infiltration appears a suitable solution for storm water.

At this time, there are no house plans developed for the two new parcels. It has been assumed that 2000 SF of new impervious area would be created with development.

### Regulatory:

#### *2.0013 Minimum Design Criteria*

##### *A. Storm Detention Facilities*

*2. Storms to be evaluated shall include the 2, 5, 10, 25 and 100-year events. Allowable post development discharge rates for the 2, 5, 10, and 25-year events shall be that of the pre-development rate. An outfall structure such as a "V-Notch" weir or single or multiple orifice structure shall be designed to control the release rate for the above events. No flow control orifice smaller than 1 in. shall be allowed. If the maximum release cannot be met with all the site drainage controlled by a single 1 in. orifice, the allowable release rate provided by a 1 in. orifice will be considered adequate as approved by the City Engineer.*

### Time of Concentration:

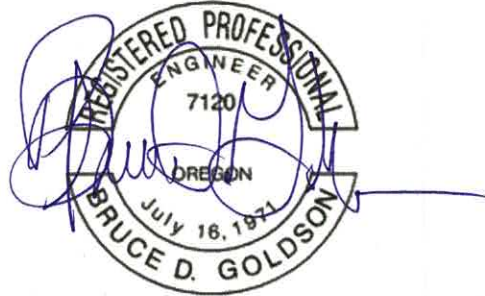
A minimum 5-minutes was assumed

### CITY OF PORTLAND PRESUMPTIVE APPROACH CALCULATOR

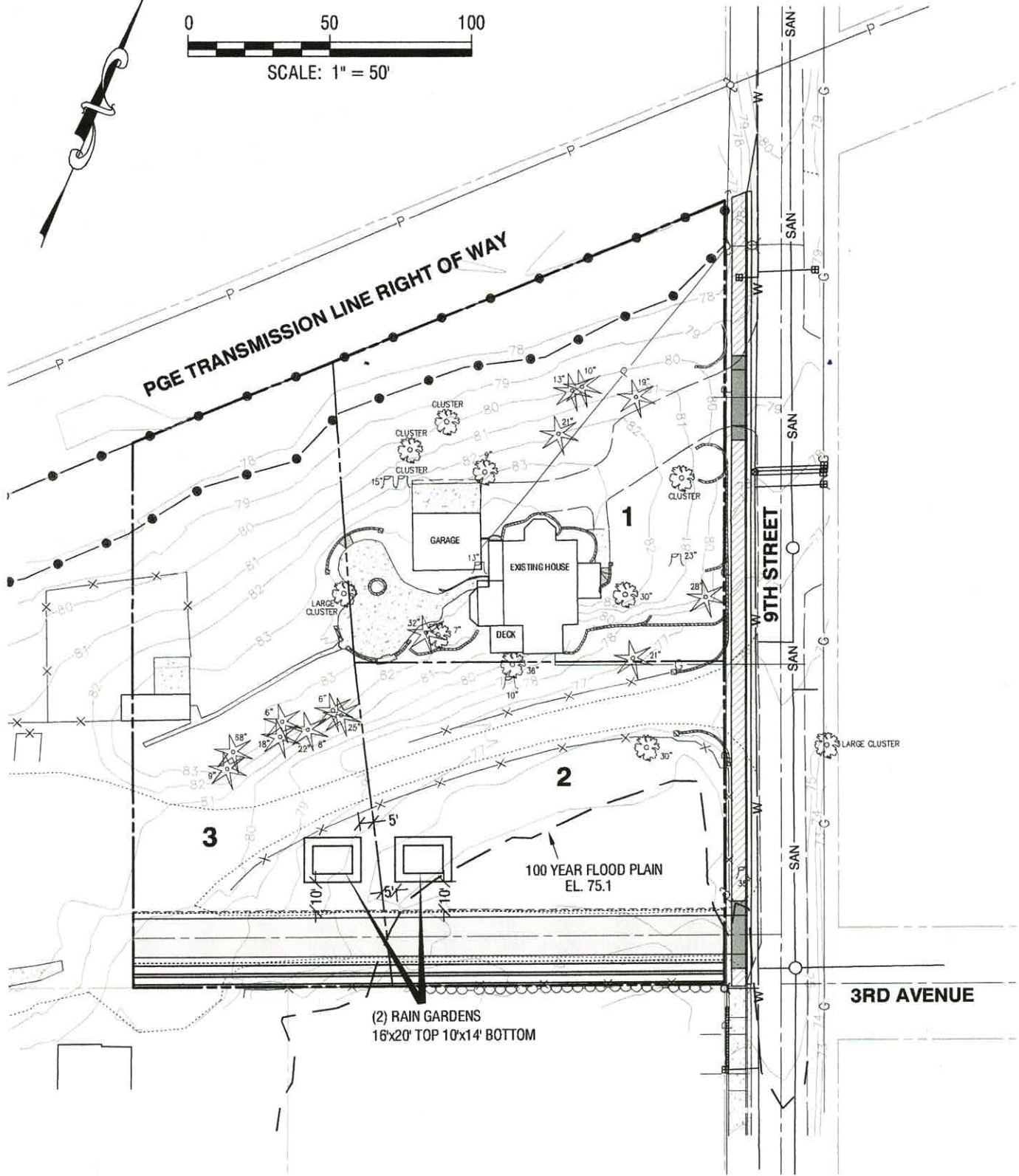
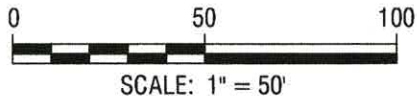
Applying the site information to the City of Portland software a facility was sized with a rain garden having a facility bottom area of 140 SF and meeting the pollution reduction and onsite infiltration. (See Attached). These calculations demonstrate feasibility and will be modified when actual development plans are available.

---

Prepared by:  
Bruce D. Goldson, PE  
Theta  
2014-129z  
March 23, 2022



EXPIRES: 06/30/2023  
SIGNATURE DATE: 3/23/22



2022-129Z

**PRILIMINARY STORM DRAINAGE**

**Theta, llc**

ENGINEERING - SURVEYING - PLANNING

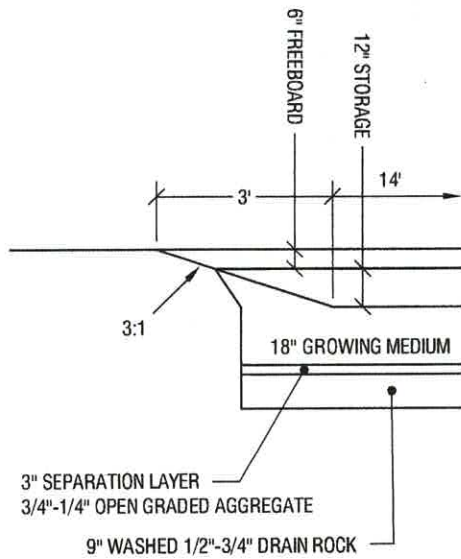
PO Box 1345  
Lake Oswego, Oregon 97035

503-481-8822  
email: thetaeng@comcast.net

1220 9th Street - Partition of Lot D  
West Linn, Oregon

**1**  
**2**

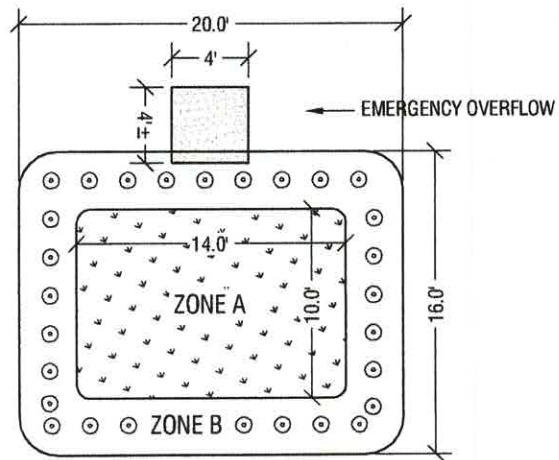




**SECTION**

SCALE: NTS

- ⊙ POLYPODIUM MUNITUM (SWORD FERN)
- @ 24" O.C. - ZONE B
- JUNCUS TENUIS (SIENDER SEDGE)
- CAREX DENSAI (DENSE SEDGE)
- SCRIPTUS AMERICANUS (AMERICAN BULLRUSH)
- 1/3 EACH @ 12" O.C.



**RAIN GARDEN**

SCALE: 1" = 10'

2022-129Z

PRILIMINARY STORM DRAINAGE

**Theta, llc**

ENGINEERING - SURVEYING - PLANNING

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email: thetaeng@comcast.net

1220 9th Street - Partition of Lot D  
West Linn, Oregon

**2**  
**2**





# Presumptive Approach Calculator ver. 1.2

Catchment Data

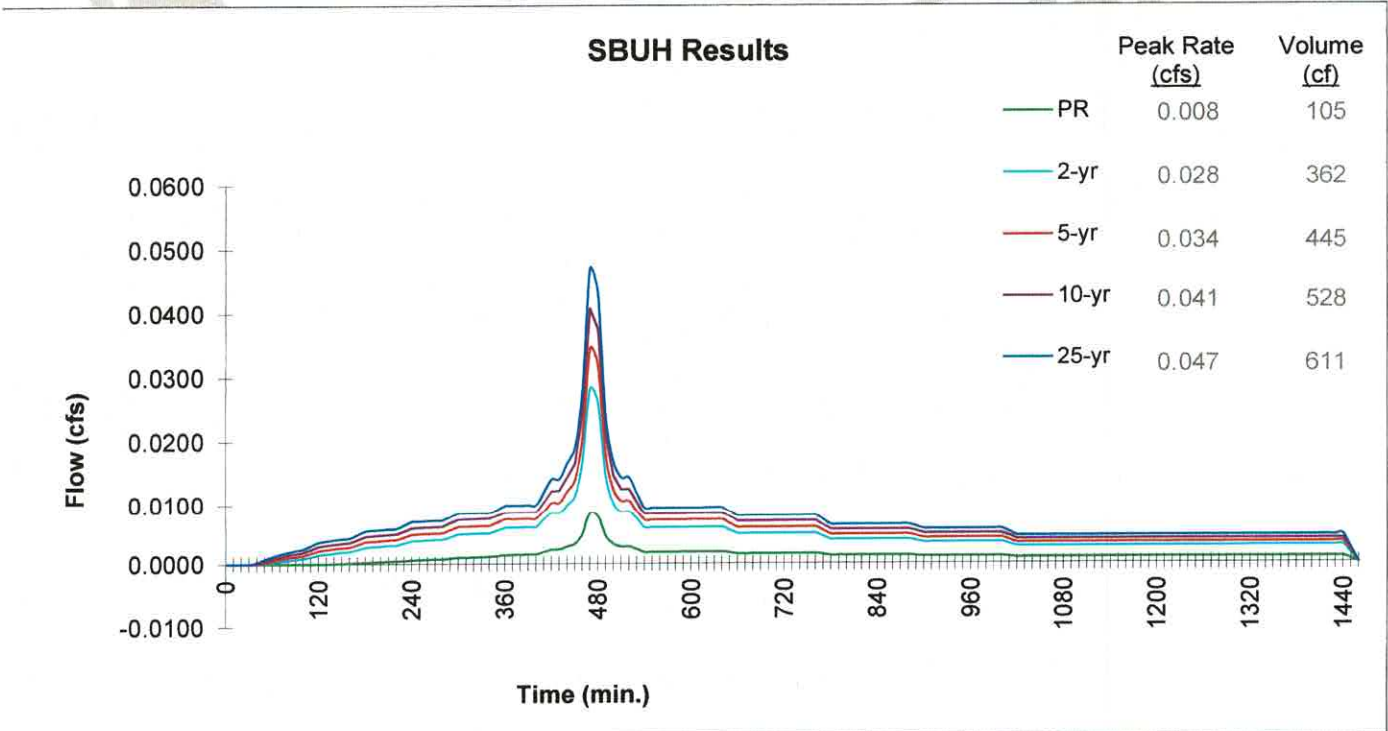
Project Name: **D partition**  
 Project Address: **1220 9th West Linn**  
 Designer: **B. Goldson**  
 Company: **Theta**

Catchment ID: **A**  
 Date: **03/22/22**  
 Permit Number: **0**

Run Time 3/22/2022 3:28:06 PM

Drainage Catchment Information	
Catchment ID	A
Catchment Area	
Impervious Area	2,000 SF
Impervious Area	0.05 ac
Impervious Area Curve Number, $CN_{imp}$	98
Time of Concentration, $T_c$ , minutes	5 min.
Site Soils & Infiltration Testing Data	
Infiltration Testing Procedure:	Open Pit Falling Head
Native Soil Field Tested Infiltration Rate ( $I_{test}$ ):	1.27 in/hr
Bottom of Facility Meets Required Separation From High Groundwater Per BES SWMM Section 1.4:	Yes
Correction Factor Component	
$CF_{test}$ (ranges from 1 to 3)	2
Design Infiltration Rates	
$I_{dsgn}$ for Native ( $I_{test} / CF_{test}$ ):	0.64 in/hr
$I_{dsgn}$ for Imported Growing Medium:	2.00 in/hr

Execute SBUH





**Presumptive Approach Calculator ver. 1.2**

Catchment ID: **A**

Run Time 3/22/2022 3:28:06 PM

Project Name: **D partition**

Catchment ID: **A**

Date: **3/22/2022**

**Instructions:**

1. Identify which Stormwater Hierarchy Category the facility.
2. Select Facility Type.
3. Identify facility shape of surface facility to more accurately estimate surface volume, except for Swales and sloped planters that use the PAC Sloped Facility Worksheet to enter data.
4. Select type of facility configuration.
5. Complete data entry for all highlighted cells.

Catchment facility will meet Hierarchy Category: **1**

Goal Summary:

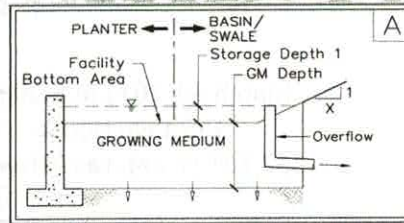
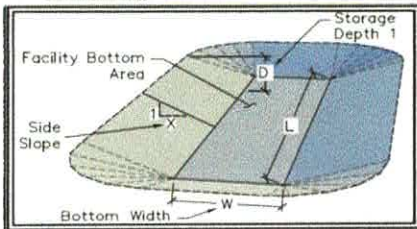
Hierarchy Category	SWMM Requirement	RESULTS box below needs to display...	
		Pollution Reduction as a	10-yr (aka disposal) as a
1	On-site infiltration with a surface infiltration facility.	PASS	PASS

Facility Type = **Basin**



Facility Shape: **Rectangle/Square**

Facility Configuration: **A**



Calculation Guide
Max. Rock Stor.
Bottom Area
308 SF

**DATA FOR ABOVE GRADE STORAGE COMPONENT**

Facility Bottom Area = **140** sf  
 Bottom Width = **10.0** ft  
 Facility Side Slope = **3** to 1  
 Storage Depth 1 = **12** in  
 Growing Medium Depth = **18** in  
 Freeboard Depth = **N/A** in

**BELOW GRADE STORAGE**

Rock Storage Bottom Area = **266** sf  
 Rock Storage Depth = **0** in

Surface Capacity at Depth 1 = **224** cf  
 Infiltration Area at 75% Depth1 = **266** SF  
 GM Design Infiltration Rate = **2.00** in/hr  
 Infiltration Capacity = **0.012** cfs

Rock Storage Capacity = **0** cf  
 Native Design Infiltration Rate = **0.64** in/hr  
 Infiltration Capacity = **0.004** cfs

Native Infiltration Rate Used in P/

RESULTS		Overflow Volume	
Pollution Reduction	<b>PASS</b>	0 CF	<b>3%</b> Surf. Cap. Used
10-yr	<b>PASS</b>	0 CF	<b>96%</b> Surf. Cap. Used

Run PAC

**FACILITY FACTS**

Total Facility Area Including Freeboard = **#VALUE!**  
 Sizing Ratio (Total Facility Area / Catchment Area) = **#VALUE!**



**Clackamas County Area, Oregon (OR610)**

Clackamas County Area, Oregon (OR610)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
19	Cloquato silt loam	1.1	70.8%
84	Wapato silty clay loam	0.4	29.2%
<b>Totals for Area of Interest</b>		<b>1.5</b>	<b>100.0%</b>





**SCHOTT & ASSOCIATES**  
Ecologists & Wetlands Specialists

---

21018 NE Hwy 99E • P.O. Box 589 • Aurora, OR 97002 • (503) 678-6007 • FAX: (503) 678-6011

**NATURAL RESOURCE ASSESSMENT**  
**Within**  
**Water Resource Area (WRA) and**  
**Habitat Conservation Area (HCA)**

1220 9<sup>th</sup> St  
West Linn, OR

T13S, R1E, Section 2AC  
TL# 300  
Clackamas County

**Prepared for**

Darren Gusdorf  
Icon Construction and Development  
1969 Willamette Falls Drive, Suite 160  
West Linn, Oregon 97068

**Prepared by**

Juniper Tagliabue  
of  
Schott & Associates, Inc.

**Date:**

March 2022

Project #: 2942

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## **Introduction**

Schott & Associates (S&A) was contracted to conduct a wetland delineation and natural resource assessment report for the project site at 1220 9<sup>th</sup> Street, West Linn, Clackamas County, Oregon (T3S, R1E, Section 02AC, tax lot 300); Figure 1). Wetland delineation has been completed and submitted to DSL for review (WD#2022-0084; Appendix A). This subject property contains zoning overlays including Water Resource Area (WRA) and Habitat Conservation Area (HCA) (Figure 3 & 4) and is subject to the regulations of West Linn Community Development Code (CDC) Chapter 32 and Chapter 28 respectively. The purpose of this report is to document existing and proposed conditions with regards to the WRA setback and moderate HCA boundary to gain approvals for WRA permit and WRG permit as applicable.

All work on this project has been completed by qualified natural resource specialists. Onsite assessment was conducted by Jodi Forgione, principal of S&A, a wetland and wildlife ecologist with over 10 years' experience in conducting natural resource assessments. The project management and reporting were completed by Juniper Tagliabue, a senior wetland ecologist with over 15 years' experience conducting natural resource assessments and permitting.

## **Site Description and Land Use**

The study site encompassed the entirety of tax lot 300. The somewhat irregular triangular shaped property was defined by 9<sup>th</sup> Street to the east and a power line utility easement to the north. To the south was predominantly open space, with a new residential home adjacent to the southeast corner of the study site. At the time of the site visit a large residential home was present in the northeastern portion of the site with access via driveway from 9<sup>th</sup> Street to the east. A large barn was located at the western end of the property with a separate driveway access via 9<sup>th</sup> street and a large gravel parking area. To the south was grasses.

Site topography was characterized by a small knoll in the eastern portion of the site with all the buildings and barn located on higher ground, sloping down and offsite along the margins to the north, west and south. Vegetation was generally composed of mowed lawns with a forested area around the house in the eastern portion of the site. North of the barn was a bare paddock. West of the barn was flat and appeared to have been a historically graded paddock. In the earliest available aerial photograph (Google Earth 1994), the residential home is not clearly visible but believed to be present under tree canopy in the northeast portion of the site. A smaller building is present in the location of the existing barn and clearing for future development or paddock use for livestock may already be underway. From 2000, additional site clearing has been conducted and the barn and parking area are clearly visible, the site is in much the same condition as it was during the time of fieldwork. In 2021 construction of a new residence on the property to the south is evident.

Surrounding land use was residential with Willamette Park, located at the confluence of the Tualatin River and the Willamette River, located just to the south and west.

## **Project Objectives**

The applicant proposes a 3-lot minor partition on the property located at 1220 9<sup>th</sup> St. There is currently an historic lot line that divides the property into two. WRA application is for the entire existing property. The property is located within the R-10 zone. Wetland delineation conducted onsite by S&A documented preliminary jurisdictional boundaries of onsite water resources. WRA setback extends 65 feet south of the wetland boundary as per CDC Chapter 32. Four homes, including one existing, are proposed outside the delineated wetland within the mapped WRA. A WRA permit is required.

The applicant requests approval under the Alternative Review Process per Section 32.080. In order to complete the construction of the development the applicant proposes a reduced WRA to 25' wide in an

otherwise degraded portion of the 65' wide WRA. This will maximize development potential of the property while maintaining the highest quality onsite resources.

Per the Metro Habitat Conservation Area (HCA) Map, the southeast portion of the site is in "moderate" HCA. HCAs are regulated by Chapter 28: Willamette and Tualatin River Protection (WRG). A WRG permit is required. As per 28.070 verification of the HCA boundary by the planning director is allowed. As described in this report the HCA map is inaccurate; no HCA should be mapped onsite and no WRG permit should be required.

## Methods

While preparing this application site visit was conducted and the following existing data and information was reviewed:

- Clackamas County tax map
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) and West Linn Local Wetland Inventory (LWI)
- West Linn Water Resource Area (WRA) Map (Figure 3)
- West Linn HCA Map (Figure 4)
- Oregon Department of Forestry (ODF) and Metro stream mapping
- U.S. Department of Agriculture (USDA) NRCS gridded Soil Survey Geographic (gSSURGO) database for Clackamas County
- Aerial photographs from the time period between 1994 and 2021, obtained from Google Earth
- Contours derived from the Oregon Department of Geology and Mineral Industries (DOGAMI, 2009)
- Previous DSL files for subject property (TL300; WD2001-0340) and property to south (TL800; 2020-0824 NSP, WD2019-0614).
- Permit# 935-21-000993-SD-1 Conditions of Approval
- Pre-application meeting conducted with City of West Linn; January 6, 2022 & February 17, 2022

Schott & Associates visited the site on January 3, 2022. Delineation data were collected according to methods described in the *1987 Manual* and the *Regional Supplement to the Corps of Engineers Delineation Manual: Western Mountains, Valleys, and Coast (Version 2.0)*. Seven sample plots were established throughout the site to locate the boundaries of wetlands. For each sample plot, data on vegetation, hydrology, and soils was collected, recorded in the field and later transferred to data forms. Plant indicator status was determined using the 2020 National Wetland Plant List (Corps 2020).

All identified wetlands and waters are classified according to the USFWS *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979) and the *Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites* (DSL 2001). Delineation report was submitted to DSL and is currently under review (WD#2022-0084).

Vegetation communities for mapped WRA and HCA were assessed in the field and documented by upland sample plots 1,2,3,4,6 located within the delineation report. Data forms are located in Appendix B of the delineation report (Appendix A). Results are described below.

Ground level photographs were taken to document site conditions (See Appendix C of Delineation Report).

## Results

Two soil series were mapped within the study site boundary according to the USDA NRCS soil survey for Clackamas County. Cloquato silt loam was mapped over most of the site. This is a well-drained series found predominantly in flood plains with 3% hydric inclusions. Wapato silty clay loam mapped was at the northern margin of the site. This poorly drained soil is listed as a hydric soil series as well as containing inclusions of other hydric soils.

No NWI wetlands or aquatic habitats are mapped on the site. The LWI shows a wetland closely corresponding to the delineated wetland as mapped in the field. A degraded WRA area associated with the onsite wetland was mapped onsite. No WRA was found to extend onsite from the offsite wetland to the south due to existing development truncating the WRA at the property boundary.

One Moderate HCA was found not to be present. Verification by the planner is requested as part of this application.

## Chapter 32 Water Resource Area

### Protected Water Features

Based on soils, vegetation and hydrology data gathered in the field, S&A identified one wetland along the northern and western margins of the study site. The wetland occupied the bottom of a broad swale and extended offsite to the north and west. The wetland was bounded by gentle to moderate sloped topography. Wetland, drainage channel, sample plots, and photo point locations are shown in the delineation report (Appendix A; Figure 6).

*Wetland 1* (0.3-ac) was vegetated predominantly by facultative pasture grasses including meadow foxtail (*Alopecurus pratensis*; FAC), colonial bentgrass (*Agrostis capillaris*; FAC), and tall fescue (*Schedonorus arundinaceus*; FAC) along with creeping buttercup (*Ranunculus repens*; FAC). The western edge of the site was terraced and sloped offsite with a distinct elevation change. The area was overgrown with Himalayan blackberry (*Rubus armeniacus*; FAC) and could not be accessed. This boundary was estimated based on the blackberry line and topographic interpretation. The wetland was assessed as a slope HGM class with a Cowardin class of seasonally flooded, palustrine emergent (PEMC).

Soils samples met the Corps hydric soil indicator for redox dark surface (F6). Soils were dark brown (10YR 3/2) in matrix color with common yellow-red redoximorphic concentrations occurring as soft masses. The soil texture was silt loam. Wetland hydrological indicators observed included high water table (A2) and soil saturation (A3).

The wetland was bounded by topographic changes extending upslope to the residential home and barn. Soils in the uplands did not meet hydric soil criteria. Hydrological indicators were present in uplands, however this was assumed in part due to the recent heavy rains.

One drainage channel was identified within the wetland at the western extent of the property flowing from the west, to the east and then north. The channel extended offsite to both the north and west. The channel ranged from 2-4 feet wide and 1-3 feet deep with a silty substrate. The channel was well defined to slightly entrenched. Several inches of surface water were flowing during fieldwork. No vegetation was present within the channel. Himalayan blackberry was rooted outside the channel and growing over the channel, making access difficult. It is estimated that the channel is seasonal in flow period. The channel is not identified on the LWI, NWI or any local resources. The feature was assessed as a riverine flow through HGM class with an intermittent riverine streambed (R4SB) aquatic habitat.



One additional protected water feature was identified offsite to the south. This wetland was delineated by others (WD#2019-0614).

### **Water Resource Areas (WRA)**

As required by Table 32-2 the required width of the Water Resource Area extends 65 feet from the wetland boundary. A 65-foot buffer was assessed extending south from the onsite wetland (Figure 6). As per CDC Section 32.050(F)(8) plant communities within the undisturbed WRA were identified and characterized. This area was characterized by maintained landscape dominated by tall fescue and common bentgrass. The eastern portion was mowed and maintained with a cluster of large Douglas fir (*Pseudotsuga menziesii*) trees planted around the house in the north portion of the property. The 65-foot WRA boundary encompassed the house and driveway in this area. To the west the grass community was poorly established due to historical disturbance and grading for livestock pasture/paddock and parking. The westernmost portion of the buffer was entirely composed of Himalayan blackberry. A compacted parking area, chicken coops, and portion of the barn are included within the 65' boundary in this area. The entire WRA was found to be in degraded condition.

Any WRA previously extending north from the adjacent property to the south (TL800) was entirely truncated by permitted development for offsite residential development (File No: WAP-20-01/WRG-20-01/MIS-20-01/LLA-20-01) and construction of a 14-foot driveway for 1088 9<sup>th</sup> St (935-21-000993-SD-01) within the onsite ingress/egress & utility easement (Existing Conditions Map; March 10, 2022; Figure 7). At the time of the site visit the driveway was staked but had not been constructed. Vegetation was composed entirely of non-native invasive grasses as described above and was in degraded condition. No WRA was found to be onsite for this wetland.

### **Chapter 32 Approval Criteria**

#### **32.070 ALTERNATE REVIEW PROCESS**

*This section establishes a review and approval process that applicants can use when there is reason to believe that the width of the WRA prescribed under the standard process (CDC 32.060(D)) is larger than necessary to protect the functions of the water resource at a particular site. It allows a qualified professional to determine what water resources and associated functions (see Table 32-4 below) exist at a site and the WRA width that is needed to maintain those functions. (Ord. 1623 § 1, 2014)*

#### **32.080 APPROVAL CRITERIA (ALTERNATE REVIEW PROCESS)**

*Applications reviewed under the alternate review process shall meet the following approval criteria:*

*A. The proposed WRA shall be, at minimum, qualitatively equal, in terms of maintaining the level of functions allowed by the WRA standards of CDC 32.060(D).*

**Response:** As described in this report, the existing WRA is low functioning and includes existing developed area as well as low functioning vegetation dominated by a single stratum of non-native invasive vegetation. The alternate WRA will extend 25' feet from the wetland boundary and be enhanced to good condition with a diverse mix of native trees, shrubs and groundcover species (Figure 6 and Table 2). The proposed WRA shall be, at minimum, qualitatively equal in terms of maintaining the level of functions allowed by the WRA standards of CDC 32.060(D).

*B. If a WRA is already significantly degraded (e.g., native forest and ground cover have been removed or the site dominated by invasive plants, debris, or development), the approval authority may allow a reduced WRA in exchange for mitigation, if:*

1. *The proposed reduction in WRA width, coupled with the proposed mitigation, would result in better performance of functions than the standard WRA without such mitigation. The approval authority shall make this determination based on the applicant's proposed mitigation plan and a comparative analysis of ecological functions under existing and enhanced conditions (see Table 32-4).*

**Response:** As described in this report, the existing WRA is significantly degraded. Native forest has been removed and the site was dominated by non-native invasive species including pasture grass species and Himalayan blackberry as well as existing development including a home, driveway, and barn. The western portion of the site was historically used for livestock and the site has been heavily grazed and compacted from this use. The applicant proposes to reduce the existing WRA. The proposed WRA will extend 25 feet from the wetland boundary to the north. Mitigation will consist of removal of invasive species and replacement of native trees, shrubs and groundcover. The proposed reduced WRA, along with mitigation, will result in significantly higher functions than the existing (standard) WRA without mitigation.

<b>Table 1. Ecological Functions Comparison per Table 32-4</b>		
<b>Ecological Functions</b>	<b>WRA existing conditions</b>	<b>WRA enhanced conditions</b>
Stream flow moderation and/or water storage	Wetland Storage functions moderate, surface water flows into wetland as well across portions of the WRA. Much of the WRA is developed. Small well defined intermittent stream within wetland. Does not overflow bank.	Storage functions will be higher with vegetation density increase in WRA to further slow flow for better storage capacity.
Sediment or pollution control	Vegetation is present but highly disturbed within 100' of wetland /waterways. Development also present. The majority of vegetation is non-native grasses and Himalayan blackberry with few trees.	Increased vegetation and tree canopy within the entire remaining onsite WRA will increase functions by slowing water flow, creating more tree canopy and increasing the capacity to filter nutrients and retain sediments.
Bank stabilization	Well defined bank for small intermittent stream within wetland boundary.	Increased native vegetation may help bank stabilization although bank is located within wetland boundary.
Large wood recruitment for a fish bearing section of stream	Not a fish bearing stream. Few trees for LWD recruitment.	Additional trees will eventually increase tree canopy and increase functions. No fish bearing stream present.
Organic material sources	Few scattered trees within the western portion with a dominance of blackberry shrub. Forest habitat not present with the exception of planted trees around home.	Additional trees/shrubs will increase organic material sources throughout the WRA.

Shade (water temperature moderation) and microclimate	No fish bearing stream. Currently minimal shade, with a few trees around the home on the northeastern side of the site and along the western margin of the site.	Additional tree planting will significantly increase this function, improving downstream temperatures as well.
Stream flow that sustains in-stream and adjacent habitats	Minor channel extending through wetland. Intermittent flow.	Intermittent flow will be maintained. No hydrologic impacts anticipated.
Other terrestrial habitat	Habitat within 100 feet of the resource is partially developed with predominantly non-native and invasive vegetation with few scattered native trees planted around the home.	Removal of invasives and planting of diverse native species shall increase type and diversity of cover and food sources, significantly improving terrestrial habitat.

2. *The mitigation project shall include all of the following components as applicable. It may also include other forms of enhancement (mitigation) deemed appropriate by the approval authority.*

- a. *Removal of invasive vegetation.*
- b. *Planting native, non-invasive plants (at minimum, consistent with CDC 32.100) that provide improved filtration of sediment, excess nutrients, and pollutants. The amount of enhancement (mitigation) shall meet or exceed the standards of CDC 32.090(C).*
- c. *Providing permanent improvements to the site hydrology that would improve water resource functions.*
- d. *Substantial improvements to the aquatic and/or terrestrial habitat of the WRA.*

**Response:** The mitigation plan shall consist of removal of invasive species and planting a diverse assemblage of native trees, shrubs, and groundcover species to improve water quality functions including filtration of sediment, excess nutrients, and pollutants. Proposed enhancement will substantially improve aquatic and adjacent terrestrial habitat of the WRA onsite as well as providing additional functions within the wetland offsite to the north by increasing cover, nesting or burrowing sites and food availability and type. Proposed enhancement area is 13,196sf which exceeds the standards of CDC 32.090(C).

*C. Identify and discuss site design and methods of development as they relate to WRA functions.*

**Response:** Site design was based on siting proposed homes as far from the proposed WRA boundary as possible, minimizing potential impacts to the wetland and WRA. A shared driveway for 1088 9<sup>th</sup> Street will provide access to the three lots at the south end of the property and has already been constructed along the southern property line. This area is in degraded condition and directly adjacent to recent development to the south. The WRA to the south is primary located offsite and has been mitigated by others. This higher functioning WRA boundary will provide adequate protection to the offsite wetland.

*D. Address the approval criteria of CDC 32.060, with the exception of CDC 32.060(D).*

**Response:** Applicable approval criteria addressed below.

No application for development on property containing a WRA shall be approved unless the approval authority finds that the proposed development is consistent with the following approval criteria, or can satisfy the criteria by conditions of approval:

- A. *WRA protection/minimizing impacts.*
1. *Development shall be conducted in a manner that will avoid or, if avoidance is not possible, minimize adverse impact on WRAs.*
  2. *Mitigation and re-vegetation of disturbed WRAs shall be completed per CDC 32.090 and 32.100 respectively.*

**Response:** Proposed development shall minimize adverse impact on the WRA to the extent possible given the limitations of this site. Existing development and degraded WRA conditions are present, and a reduced buffer is proposed. To this end, the applicant requests approval pursuant to the Alternative Review Process provisions of Section 32.080 rather than this Section. Mitigation is provided per the standards of CDC 32.090.

- B. *Storm water and storm water facilities.*
1. *Proposed developments shall be designed to maintain the existing WRAs and utilize them as the primary method of storm water conveyance through the project site unless:*
    - a. *The surface water management plan calls for alternate configurations (culverts, piping, etc.); or*
    - b. *Under CDC 32.070, the applicant demonstrates that the relocation of the water resource will not adversely impact the function of the WRA including, but not limited to, circumstances where the WRA is poorly defined or not clearly channelized. Re-vegetation, enhancement and/or mitigation of the realigned water resource shall be required as applicable.*
  2. *Public and private storm water detention, storm water treatment facilities and storm water outfall or energy dissipaters (e.g., rip rap) may encroach into the WRA if:*
    - a. *Accepted engineering practice requires it;*
    - b. *Encroachment on significant trees shall be avoided when possible, and any tree loss shall be consistent with the City's Tree Technical Manual and mitigated per CDC 32.090;*
    - c. *There shall be no direct outfall into the water resource, and any resulting outfall shall not have an erosive effect on the WRA or diminish the stability of slopes; and*
    - d. *There are no reasonable alternatives available.*  
*A geotechnical report may be required to make the determination regarding slope stability.*
  3. *Roadside storm water conveyance swales and ditches may be extended within rights-of-way located in a WRA. When possible, they shall be located along the side of the road furthest from the water resource. If the conveyance facility must be located along the side of the road closest to the water resource, it shall be located as close to the road/sidewalk as possible and include habitat friendly design features (treatment train, rain gardens, etc.).*
  4. *Storm water detention and/or treatment facilities in the WRA shall be designed without permanent perimeter fencing and shall be landscaped with native vegetation.*
  5. *Access to public storm water detention and/or treatment facilities shall be provided for maintenance purposes. Maintenance driveways shall be constructed to minimum width and use water permeable paving materials. Significant trees, including roots,*

*shall not be disturbed to the degree possible. The encroachment and any tree loss shall be mitigated per CDC [32.090](#). There shall also be no adverse impacts upon the hydrologic conditions of the site.*

**Response:** The project has been designed to maintain the existing WRA. Stormwater is anticipated to be treated and detained using rain gardens adjacent to the new homes. No outfall shall be located directly into the water resource. No public stormwater facilities are proposed on-site. No significant trees will be affected by the development.

*D. WRA width. Except for the exemptions in CDC [32.040](#), applications that are using the alternate review process of CDC [32.070](#), or as authorized by the approval authority consistent with the provisions of this chapter, all development is prohibited in the WRA as established in Table 32-2 below:*

**Response:** Project proposes to use alternative review process per CDC 32.070 to reduce required WRA width.

*F. Roads, driveways and utilities.*

*1. New roads, driveways, or utilities shall avoid WRAs unless the applicant demonstrates that no other practical alternative exists. In that case, road design and construction techniques shall minimize impacts and disturbance to the WRA by the following methods:*

- a. New roads and utilities crossing riparian habitat areas or streams shall be aligned as close to perpendicular to the channel as possible.*
- b. Roads and driveways traversing WRAs shall be of the minimum width possible to comply with applicable road standards and protect public safety. The footprint of grading and site clearing to accommodate the road shall be minimized.*
- c. Road and utility crossings shall avoid, where possible:*
  - 1) Salmonid spawning or rearing areas;*
  - 2) Stands of mature conifer trees in riparian areas;*
  - 3) Highly erodible soils;*
  - 4) Landslide prone areas;*
  - 5) Damage to, and fragmentation of, habitat; and*
  - 6) Wetlands identified on the WRA Map.*

**Response:** No roads, driveways or utilities are proposed within the WRA. Driveway access for the three southern lots will be via shared access from the existing driveway constructed at the southern property boundary and approved under a different application. As described above no WRA is present in this location. No roadway will extend through the proposed WRA and no crossing of fish bearing stream or riparian corridors is proposed.

*2. Crossing of fish bearing streams and riparian corridors shall use bridges or arch-bottomless culverts or the equivalent that provides comparable fish protection, to allow passage of wildlife and fish and to retain the natural stream bed.*

**Response:** No fish bearing streams are present onsite and no crossings are proposed. This criterion is not applicable.

3. *New utilities spanning fish bearing stream sections, riparian corridors, and wetlands shall be located on existing roads/bridges, elevated walkways, conduit, or other existing structures or installed underground via tunneling or boring at a depth that avoids tree roots and does not alter the hydrology sustaining the water resource, unless the applicant demonstrates that it is not physically possible or it is cost prohibitive. Bore pits associated with the crossings shall be restored upon project completion. Dry, intermittent streams may be crossed with open cuts during a time period approved by the City and any agency with jurisdiction.*

**Response:** No new utilities shall span the WRA. As discussed with PGE and the City it was determined that undergrounding the utility lines would not be a requirement for this project.

4. *No fill or excavation is allowed within the ordinary high water mark of a water resource, unless all necessary permits are obtained from the City, U.S. Army Corps of Engineers and Oregon Department of State Lands (DSL).*

**Response:** No fill or excavation is proposed within the OHW or wetland.

5. *Crossings of fish bearing streams shall be aligned, whenever possible, to serve multiple properties and be designed to accommodate conduit for utility lines. The applicant shall, to the extent legally permissible, work with the City to provide for a street layout and crossing location that will minimize the need for additional stream crossings in the future to serve surrounding properties.*

**Response:** No fish bearing streams are present onsite and no crossings are proposed.

### **32.090 MITIGATION PLAN**

*A. A mitigation plan shall only be required if development is proposed within a WRA (including development of a PDA). (Exempted activities of CDC 32.040 do not require mitigation unless specifically stated. Temporarily disturbed areas, including TDAs associated with exempted activities, do not require mitigation, just grade and soil restoration and re-vegetation.) The mitigation plan shall satisfy all applicable provisions of CDC 32.100, Re-Vegetation Plan Requirements.*

**Response:** Development is proposed under the Alternative Review Process per CDC Chapter 32.080 resulting a reduced WRA boundary. Reduced WRA area is defined as Previously Disturbed Area (PDA) and mitigation is required at 1:1/2. No impacts are proposed within the proposed 25' WRA which will be enhanced as described below.

*B. Mitigation shall take place in the following locations, according to the following priorities (subsections (B)(1) through (4) of this section):*

1. *On-site mitigation by restoring, creating, or enhancing WRAs.*

**Response:** Mitigation is proposed onsite.

*C. Amount of mitigation.*

1. *The amount of mitigation shall be based on the square footage of the permanent disturbance area by the application. For every one square foot of non-PDA disturbed area, on-site mitigation shall require one square foot of WRA to be created, enhanced, or restored.*

2. For every one square foot of PDA that is disturbed, on-site mitigation shall require one half a square foot of WRA vegetation to be created, enhanced, or restored.

**Response:** Proposed impact area within existing 65' WRA setback (PDA) is 18,870sf. Proposed mitigation/enhancement area within the 25' reduced buffer is 13,196sf and exceeds the 1:1/2 ratio requirement.

*E. A mitigation plan shall contain the following information:*

1. A list of all responsible parties including, but not limited to, the owner, applicant, contractor, or other persons responsible for work on the development site.

**Response:** The applicant, owner and contractor are a single entity listed below.

Icon Construction and Development  
1969 Willamette Falls Drive, Suite 260  
West Linn, Oregon 97068  
503.657.4606  
[darren@iconconstruction.net](mailto:darren@iconconstruction.net)

2. A map showing where the specific adverse impacts will occur and where the mitigation activities will occur.

**Response:** See Figure 2 and Figure 6.

3. A re-vegetation plan for the area(s) to be mitigated that meets the standards of CDC 32.100.

**Response:** See the response to CDC 32.100 below.

4. An implementation schedule, including timeline for construction, mitigation, mitigation maintenance, monitoring, and reporting. All in-stream work in fish bearing streams shall be done in accordance with the Oregon Department of Fish and Wildlife.

**Response:** Mitigation shall occur concurrently with construction after all approvals are met and in accordance with planting requirements outlined in 32.100. As per City of West Linn WRA protection requirements, 80% success is required for replanted areas. The mitigation site will be monitored and maintained for three years. If, after each year monitoring period, 80% survival has not been met, dead plants will be replaced up to the 80% success required. Mitigation monitoring reports shall be provided to document these activities. No work will be conducted in fish bearing streams and the in-stream work window is not applicable.

5. Assurances shall be established to rectify any mitigation actions that are not successful within the first three years. This may include bonding or other surety.(Ord. 1623 § 1, 2014)

**Response:** The applicant can provide any necessary assurance as necessary based on coordination with City staff. We would propose that any bonding or surety be deferred based on the results of the ongoing monitoring, maintenance, and reporting requirements.

### **32.100 RE-VEGETATION PLAN REQUIREMENTS**

A. In order to achieve the goal of re-establishing forested canopy, native shrub and ground cover and to meet the mitigation requirements of CDC 32.090 and vegetative

enhancement of CDC 32.080, tree and vegetation plantings are required according to the following standards:

1. All trees, shrubs and ground cover to be planted must be native plants selected from the Portland Plant List.
2. Plant size. Replacement trees must be at least one-half inch in caliper, measured at six inches above the ground level for field grown trees or above the soil line for container grown trees ... Shrubs must be in at least a one-gallon container or the equivalent in ball and burlap and must be at least 12 inches in height.
3. Plant coverage.
  - a. Native trees and shrubs are required to be planted at a rate of five trees and 25 shrubs per every 500 square feet of disturbance area ... Non-native sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.
  - b. Trees shall be planted between eight and 12 feet on center and shrubs shall be planted between four and five feet on center, or clustered in single species groups of no more than four plants, with each cluster planted between eight and 10 feet on center. When planting near existing trees, the dripline of the existing tree shall be the starting point for plant spacing measurements.
4. Plant diversity. Shrubs must consist of at least two different species. If 10 trees or more are planted, then no more than 50 percent of the trees may be of the same genus
5. Invasive vegetation. Invasive non-native or noxious vegetation must be removed within the mitigation area prior to planting.
6. Tree and shrub survival. A minimum survival rate of 80 percent of the trees and shrubs planted is expected by the third anniversary of the date that the mitigation planting is completed.
7. Monitoring and reporting. Monitoring of the mitigation site is the ongoing responsibility of the property owner. Plants that die must be replaced in kind.
8. To enhance survival of tree replacement and plantings, the following practices are required:
  - a. Mulching. Mulch new plantings a minimum of three inches in depth and 18 inches in diameter to retain moisture and discourage weed growth.
  - b. Irrigation. Water new plantings one inch per week between June 15th to October 15th, for the three years following planting.
  - c. Weed control. Remove, or control, non-native or noxious vegetation throughout maintenance period.
  - d. Planting season. Plant bare root trees between December 1st and February 28th, and potted plants between October 15th and April 30th.
  - e. Wildlife protection. Use plant sleeves or fencing to protect trees and shrubs against wildlife browsing and resulting damage to plants.

### **WRA Enhancement Plan**

This WRA Enhancement plan has been designed to meet the requirements of 32.100(A)1-8 as outlined above and described below. The applicant proposes enhancement of a 25' buffer consisting of a total of 0.3-ac (13,196sf) onsite. The plan is expected to improve functions of the WRA by removing invasive species and impervious surfaces and replacing it with a diverse assemblage of native trees and shrubs along the entire length of the wetland. The functions expected to be enhanced include water quality functions (water storage), organic material recruitment, and upland wildlife habitat quality.

### **Planting Plan**

The planting plan was developed according to 32.100 Revegetation requirements (Table 2). All plants were selected from the Portland Plant List and are adapted to upland/riparian conditions and quantities and sizing according to the requirements. All bare ground within the restoration area will be seeded with a native grass mix as shown below. Planting plan is subject to approval by the City.



Table 2. Planting Palette for WRA Enhancement Area (13,196sf.)

Species	Type	Minimum Size	Spacing	Quantity
Black cottonwood <i>Populus balsamifera</i>	Tree	0.5" diam or 1 gal.	12' OC	30
Red alder <i>Alnus rubra</i>	Tree	0.5" diam or 1 gal.	12' OC	32
Sitka willow <i>Salix scouleriana</i>	Tree	0.5" diam or 1 gal.	12' OC	32
Swamp rose <i>Rosa pisocarpa</i>	Shrub	1 gal.	Clusters 10' OC	142
Red elderberry <i>Sambucus racemosa</i>	Shrub	1 gal.	4-5' OC	100
Red flowering currant <i>Ribes sanguineum</i>	Shrub	1 gal.	Clusters 10' OC	130
Pacific ninebark <i>Physocarpus capitatus</i>	Shrub	1 gal.	4-5' OC	100
*California brome ( <i>Bromus carinatus</i> )/Blue wildrye ( <i>Elymus glaucus</i> )	Grass	50/50% 1 lb/ac pls		As needed

### Schedule and Maintenance Requirements

Bare root trees shall be planted between December 1st and February 28th, and potted plants shall be planted between October 15th and April 30th.

Monitoring of the mitigation site is the ongoing responsibility of the property owner. Plants that die must be replaced in kind. In accordance with City requirements a minimum survival rate of 80 percent of the trees and shrubs planted is expected by the third anniversary of the date that the mitigation planting is completed.

To enhance survival of tree replacement and plantings, in accordance with Section 32.100 the following practices are required:

- Mulch new plantings a minimum of three inches in depth and 18 inches in diameter to retain moisture and discourage weed growth.
- Irrigation for new plantings shall be provided in the amount of one inch per week between June 15th to October 15th, for the three years following planting.
- Non-native or noxious vegetation shall be removed or controlled throughout maintenance period.
- Use plant sleeves or fencing to protect trees and shrubs against wildlife browsing and resulting damage to plants.

### Chapter 28 Willamette and Tualatin River Protection

#### HCA Assessment and Verification

The site was visited on January 3, 2022 for the purposes of completing a natural resource assessment to determine the actual extent of the HCA overlay. S& A walked the subject property to assess the habitat conditions. Onsite conditions were not found to be consistent with HCA designation and as per CDC 28.070 Planning Director verification is requested for removal of onsite HCA boundaries.

## **28.070 PLANNING DIRECTOR VERIFICATION OF METRO HABITAT PROTECTION MAP BOUNDARIES**

*A. The HCA Map is the basis for identifying and designating the habitat conservation areas in the City. A copy of the latest, updated HCA Map is on file at the City and is adopted by reference for use with this chapter. It is inevitable, given the large area that Metro's HCA Map covers, that there may be some errors. In cases where, for example, three properties share the same contours and the same natural features but the map shows the middle lot with an HCA designation on it, it is reasonable to question the accuracy of that HCA designation. Using tree overstory as the sole basis for HCA designation will also allow a change in designation since trees are already protected in the municipal code and Chapters 55 and 85 CDC.*

*B. The Planning Director shall verify the appropriate HCA or non-HCA designation by site visits or consultations with Metro or by other means. Determination is based on whether the Metro criteria are met or whether the Metro designation was based solely on tree overstory in which case a redesignation is appropriate. In cases where the determination is that the map is incorrect, the Planning Director will make a written finding of this as well as the site conditions that led to that conclusion.*

Onsite assessment of the mapped HCA found a maintained grass community dominated by tall fescue and common bentgrass (SP1, 2, 3). No forested or other native community was present or significantly adjacent to the mapped HCA. Review of historical aerial photographs including summer 2002 (Figure 5) indicated presence of forest canopy located just offsite to the south (TL800 and 802) which may have slightly extended onto the subject property. The majority of the mapped area appears to consist of shade from offsite trees to the south. It appears that Metro designation was based on tree canopy and redesignation is appropriate.

Further, removal of adjacent trees and construction of a new residential home south of the site occurred in 2020-2021 under approval from the City (WAP-20-01/WRG-20-01/MIS-20-01/LLA-20-01). Approved development impacted mapped HCA offsite to the south and effectively cut off any contiguous habitat that may have been present. As previously described, construction of a 14-foot driveway along the southern property boundary St (935-21-000993-SD-01) has further truncated any HCA that may have been present. Based on these conditions it is proposed that the Planning Director allow removal of this HCA from the subject property.

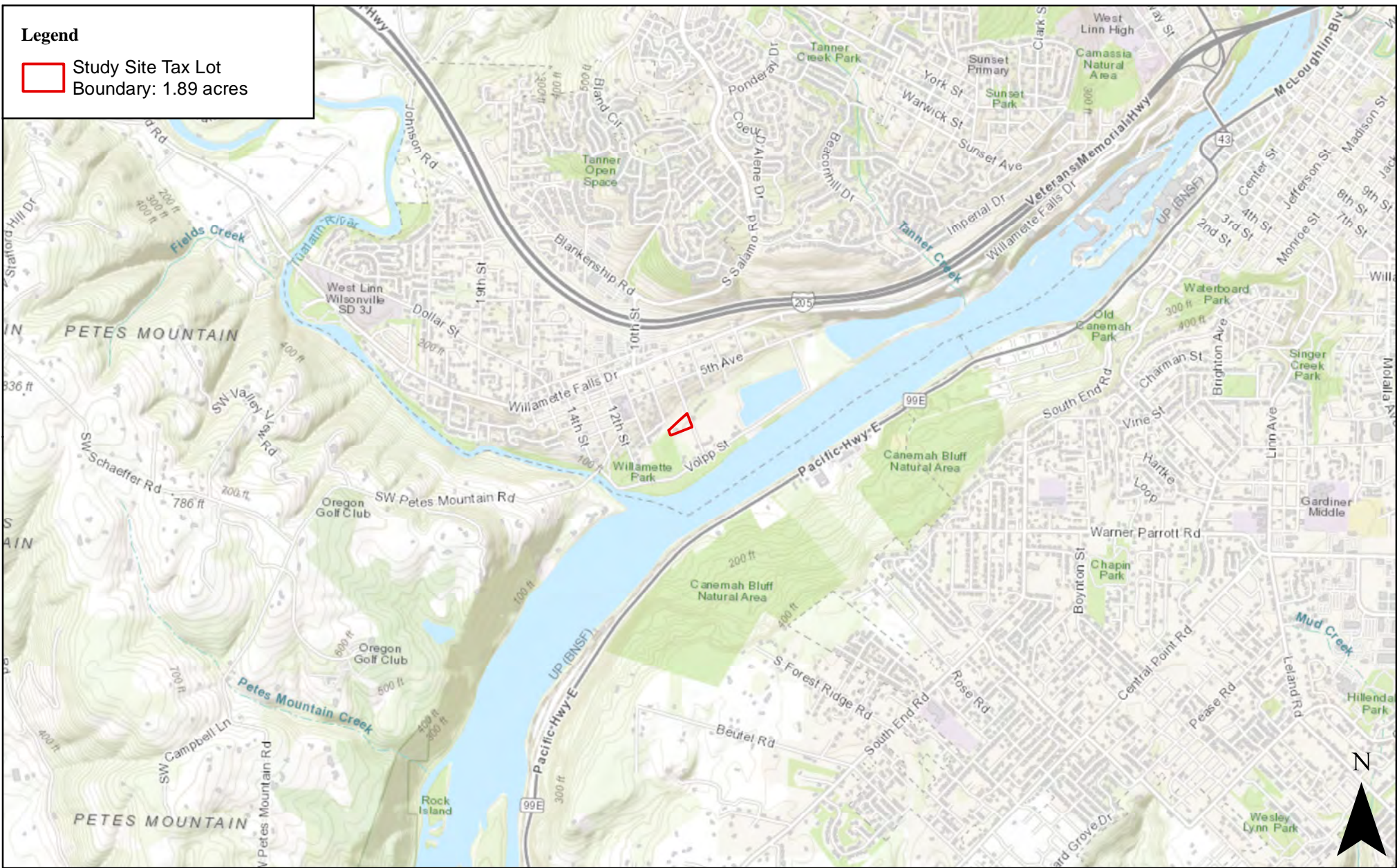
### **Summary and Conclusions**

The applicant proposes a 3-lot minor partition and residential development to include one existing home in the north portion of existing tax lot 300. Site visit was conducted by S&A to complete a wetland delineation and assess onsite conditions associated with WRA and HCA overlays.

Based on site assessment and outlined according to Chapter 32 of the West Linn Community Development Code the applicant has addressed Alternative Review Methods for WRA boundaries and proposes a 25' enhanced buffer along the entire boundary of the onsite wetland. The enhanced buffer is anticipated to provide significantly improved functions compared to functions provided by the current degraded WRA.

In accordance with Chapter 28 of the Development Code HCA verification is requested to remove mapped HCA onsite due to degraded conditions, lack of native tree canopy and presence of adjacent development truncating any extension of habitat onto the site.

**FIGURE 1: PROJECT VICINITY MAP**

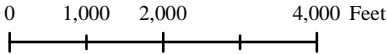


Date: 1/31/2022

Data Source: ESRI, 2022; Clackamas County GIS Dept., 2022

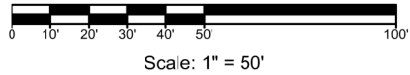
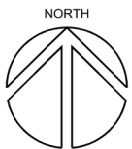
Figure 1. Location Map

9th Street Project Site: S&A #2942



**FIGURE 2: SITE DEVELOPMENT PLAN**





DESIGNED:	R.E.G.			
DRAWN:	R.E.G.			
SCALE:	1" = 50'			
DATE:	1-25-21			
FILE:	21-ICN-105	DATE	NO.	REVISION

Richard E. Givens, Planning Consultant  
 18680 Sunblaze Dr.  
 Oregon City, OR 97045  
 PH: (503) 479-0097

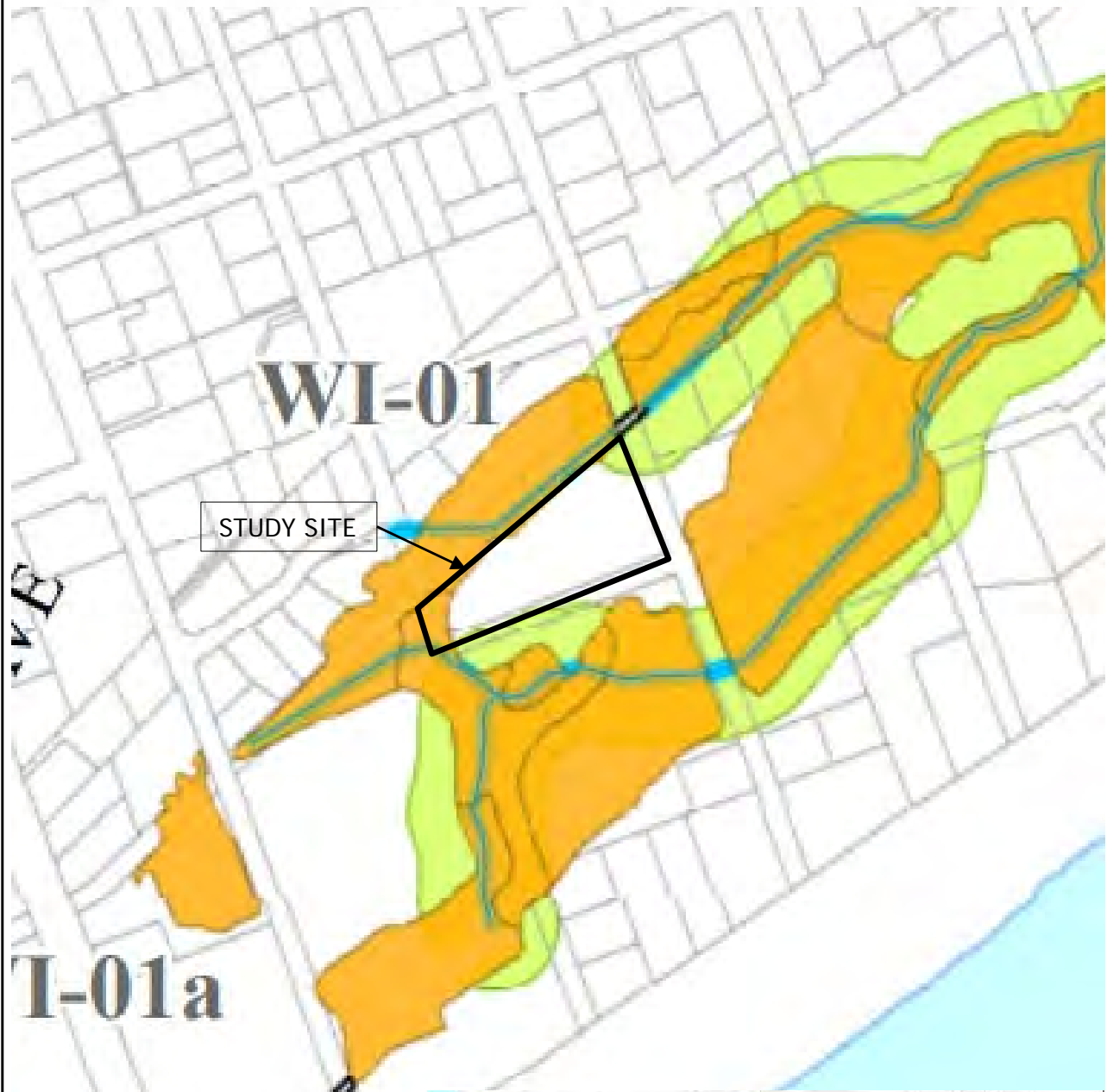
APPLICANT: Icon Construction & Development, LLC  
 1969 Willamette Falls Dr # 260  
 West Linn, OR 97068  
 PH: (503) 657-0406

**Lot D Partition - Lot C WRA**  
 Conceptual Site Plan

**FIGURE 3. CITY OF WEST LINN WRA MAP**



# Water Resource Area (WRA) Map



### Goal 5 Significant Riparian Corridors\*

- Significant Riparian Corridors
- Streams
- Ephemeral Stream
- Piped Segments
- Upper Stream Reach of Fish Inventory 2003/2004 Survey

### Goal 5 Wetland Inventory\*\*

- Locally Significant Wetlands, DSL 2005
- Other Wetlands, DSL 2005
- Specific Wetland Identifier
- Rivers & Ponds
- West Linn City Limits
- Taxlot Base Map\*\*\*

0 0.25 0.5 1 Miles

Map Created: 6/6/2014

LOC: G:\PROJECTS\GIS\GOALS\_2006\SIGRIPARIAN\SIGRIPARIAN\_WETLANDS\_201406\FINAL\MXD | KAH  
VERSION: 10.0 | 6/6/2014 | 10:00 AM | PROJECT: 201406 | 10:00 AM

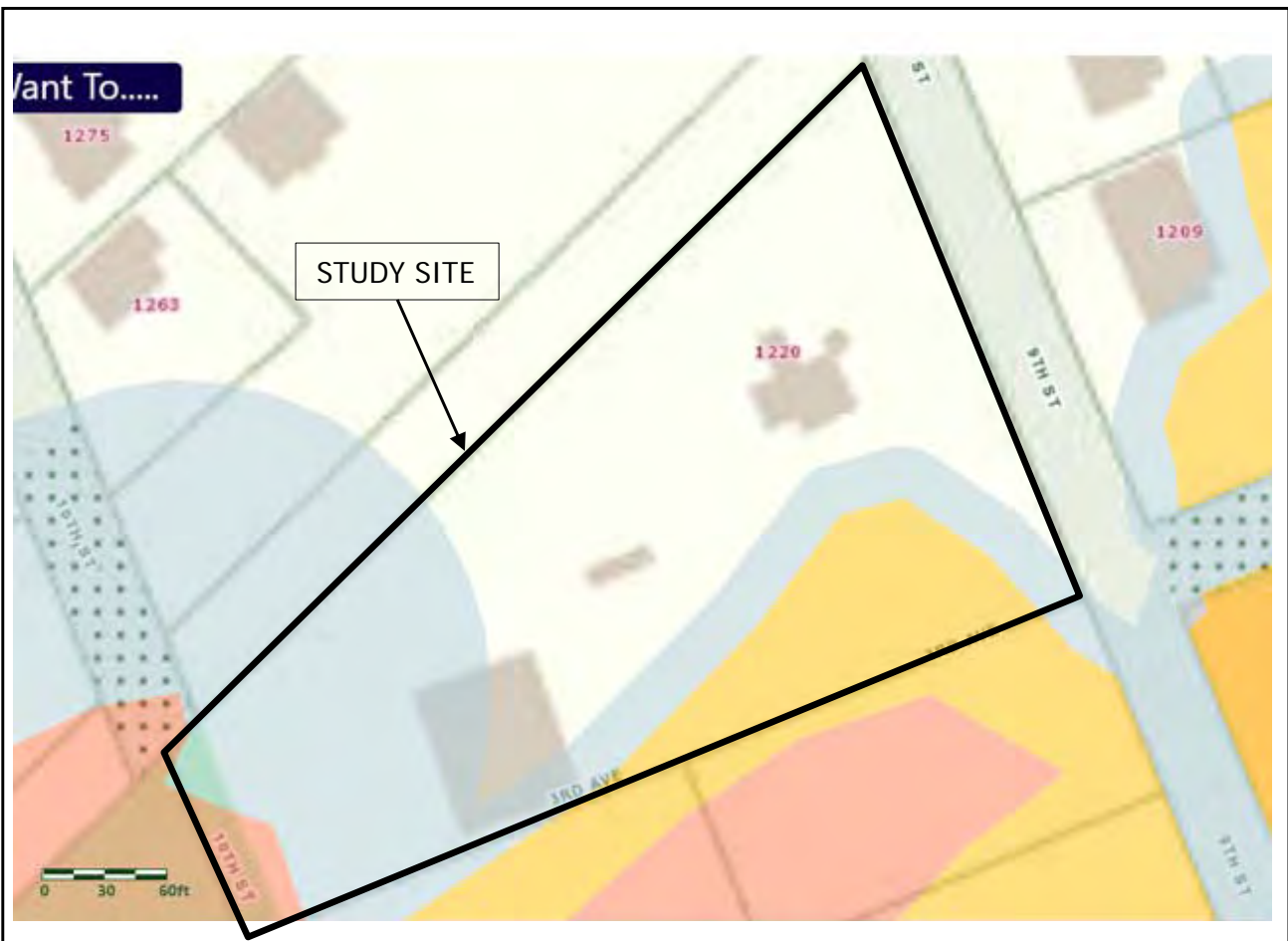
West Linn  
**GIS**  
GEOGRAPHIC INFORMATION SYSTEMS

FIGURE 3. WATER RESOURCE AREA (WRA) MAP  
9<sup>TH</sup> ST PROJECT SITE  
S&A#2942

Schott & Associates  
P.O. Box 589  
Aurora, OR. 97002  
503.678.6007



**FIGURE 4. CITY OF WEST LINN HCA MAP**



### LEGEND

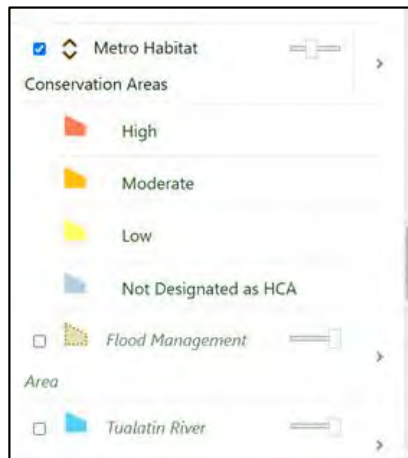



FIGURE 4. METRO HABITAT CONSERVATION AREA (HCA) MAP  
 9<sup>TH</sup> ST PROJECT SITE  
 S&A#2942

Schott & Associates  
 P.O. Box 589  
 Aurora, OR. 97002  
 503.678.6007

**FIGURE 5. 2002 AERIAL PHOTOGRAPH**

**Legend**

 Study Site Tax Lot  
Boundary: 1.89 acres



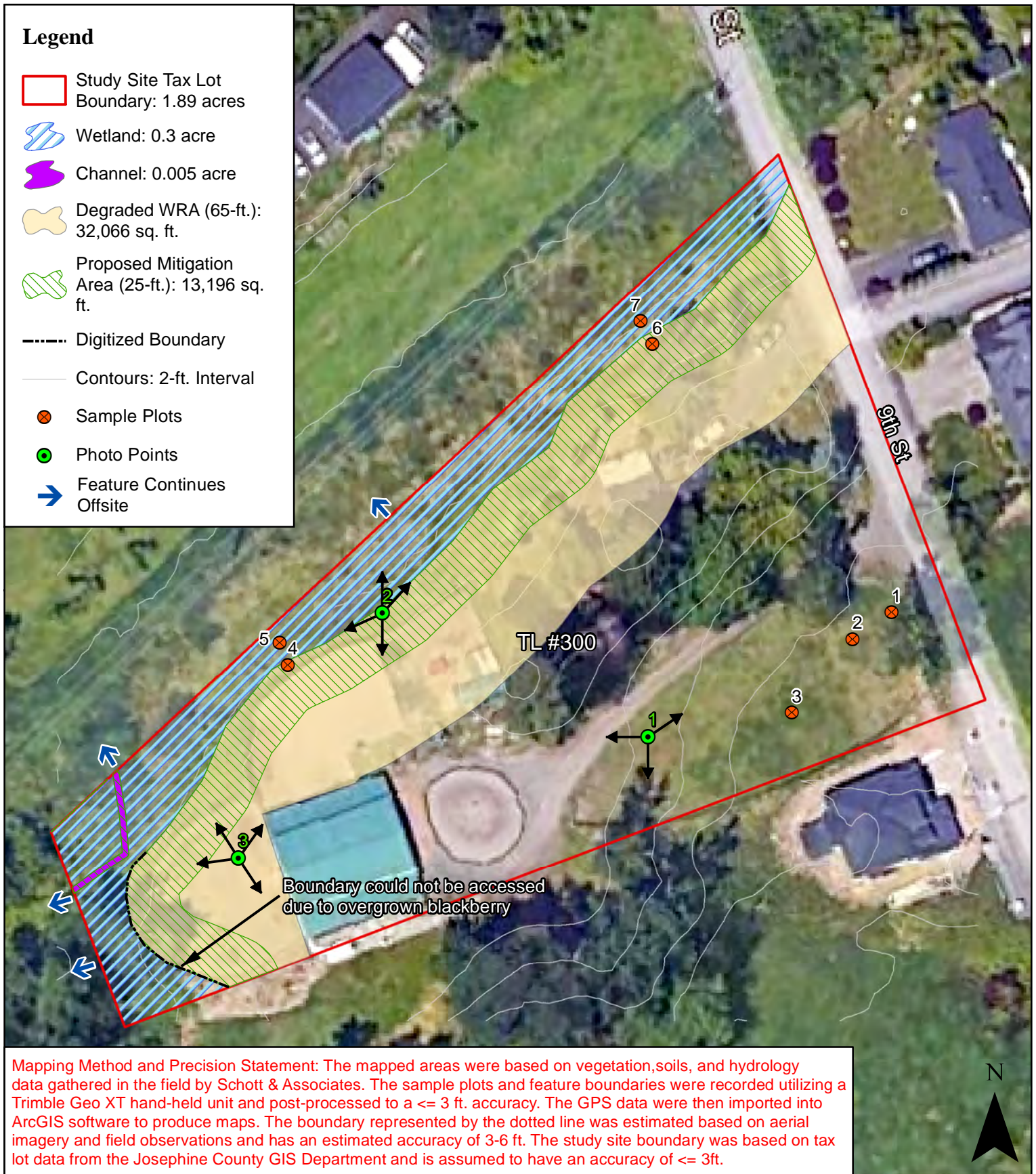
Date: 3/3/2022

Data Source: Google Earth, 2022; Clackamas  
County GIS Dept, 2022

Figure 5. 2002 Aerial

**FIGURE 6. DELINEATION/WRA EXISTING CONDITIONS AND MITIGATION  
PLANTING AREA**





Date: 3/10/2022

Data Source: Google Earth, 2022; Clackamas County GIS Dept, 2022; DOGAMI, 2009

Figure 6. Wetland Delineation Map

9th Street Project Site: S&A # 2942

**FIGURE 7: EXISTING CONDITONS MARCH 10, 2022**



# EXISTING CONDITIONS MAP

TAX LOT 300, MAP 35, 1E, 02AC  
 LOCATED IN THE N.E. 1/4 SECTION 02, T.35., R.1E., W.M.  
 CITY OF PORTLAND, MULTNOMAH COUNTY, OREGON  
 MARCH 10, 2022 SCALE 1"=20'  
 LATEST REVISION: MARCH 23, 2022

## SURVEY NOTES:

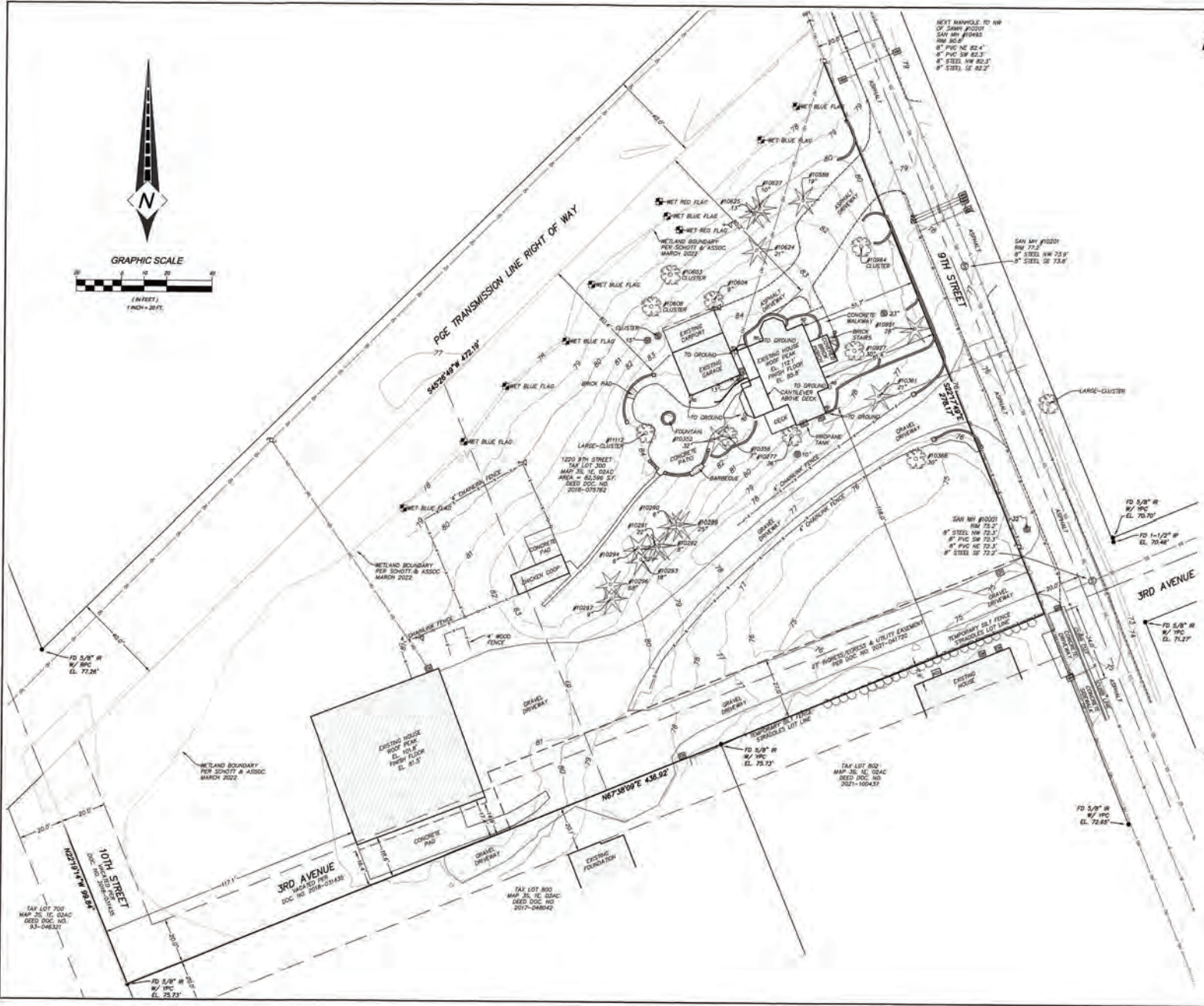
THE DATUM FOR THIS SURVEY IS BASED UPON A STATIC (PT) OBSERVATION OF LOCAL CONTROL POINTS, PROCESSED THROUGH OPUS. DATUM IS NAD 83.  
 A TRIMBLE 56-SERIES ROBOTIC INSTRUMENT WAS USED TO COMPLETE A CLOSED LOOP FIELD TRAVERSE.  
 THE BASIS OF BEARINGS FOR THIS SURVEY IS FROM MONUMENTS FOUND AND HELD PARTITION PLAT AND JUST-AS-RECORDED OF CLATSOP COUNTY.  
 THE PURPOSE OF THIS SURVEY IS TO RESOLVE AND DETERMINE THE PERMETER BOUNDARY OF THE SUBJECT PROPERTY, TO SHOW ALL PERTINENT BOUNDARY ISSUES AND ENCROACHMENTS, AND PROPERTY CORNERS WERE SET IN THIS SURVEY.  
 NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUISITION, ETC.  
 NO TITLE REPORT WAS SUPPLIED OR USED IN THE PREPARATION OF THIS MAP.  
 THE UNDERGROUND UTILITIES AS SHOWN ON THIS MAP HAVE BEEN LOCATED FROM FIELD SURVEY OF ABOVE GROUND STRUCTURES AND AS MARKED BY ONE CALL. TOILET NUMBER 20043438 DATED MARCH 8, 2020. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN CORRESPOND TO THOSE UTILITIES BY THE AREA STREET OR 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 PERSONALLY LOCATED THE UNDERGROUND UTILITIES. SUBMERGED AND STATIONARY CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO WARRANTIES ARE MADE CONCERNING THE CONTENTS OF UNDERGROUND OR OVERGROUND CONTAINERS OR STRUCTURES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR.

## LEGEND:

- Some Symbols shown may not be used on this map
- |                            |                          |
|----------------------------|--------------------------|
| 12" DEODOROUS TREE         | TRAFFIC SIGNAL POLE      |
| 24" EVERGREEN TREE         | UTILITY POLE             |
| 48" TREE STUMP             | LIGHT POLE               |
| STORM SEWER MANHOLE        | DUMP WIRE                |
| CATCH BASIN                | ELECTRIC BOX             |
| DRIVE INLET                | ELECTRIC METER           |
| AREA DRAIN                 | TRANSFORMER              |
| SECH INLET                 | ELECTRIC RISER           |
| SANITARY SEWER CLEANOUT    | HEAT PUMP                |
| SANITARY SEWER MANHOLE     | GATE POST                |
| FIRE HYDRANT               | CABLE TV BOX             |
| WATER MANHOLE              | CABLE TV RISER           |
| WATER METER                | WETLAND FLAG             |
| WATER VALVE                | BRICK WALLS              |
| HOSE BIB                   | OVERHEAD LINE            |
| IRRIGATION CONTROL VALVE   | GAS LINE                 |
| GAS VALVE                  | ELECTRICAL LINE          |
| GAS METER                  | CONCRETE FOUND LINE      |
| MAILBOX                    | SANITARY SEWER LINE      |
| UTILITY RISER              | STORM SEWER LINE         |
| UTILITY BOX                | WATER LINE               |
| TELEPHONE MANHOLE          | FENCE LINE               |
| TELEPHONE RISER            | MANHOLE                  |
| STORM CONTROL              | FRENCH DRAIN             |
| BOX                        | ARBORETAGIS ROW          |
| BOLLARD                    | FD = FOUND               |
| FOUND MARKMENT             | IP = IRON PIPE           |
| DOWN SPOUT TO STORM SYSTEM | RP = RIPPED PIPE         |
| DOWN SPOUT TO GROUND       | IPC = YELLOW PLASTIC CAP |
|                            | ALC = ALUMINUM CAP       |
|                            | RPC = RED PLASTIC CAP    |

SIGNED ON: 3/23/22  
 REGISTERED PROFESSIONAL LAND SURVEYOR  
 OREGON  
 JULY 13, 2004  
 TROY S. BOLDEN  
 803713  
 RENEWAL: DECEMBER 31, 2023

**CENTERLINE CONCEPTS**  
 LAND SURVEYING, INC.  
 19376 MOLLALA AVE., SUITE 120  
 OREGON CITY, OREGON 97045  
 PHONE: 503.650.0198 FAX: 503.650.0189  
 PLOTTED IN: VPROJETS\1009-9TH ST-1220\109\LEGM-C33.dwg





**APPENDIX A: WETLAND DELINEATION**

## 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.

Contact and Authorization Information	
<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Owner Name, Firm and Address: Darren Gusdorf Icon Construction and Development 1969 Willamette Falls Drive, Suite 160 West Linn, OR 97068	Business phone # (503) 657-0406 Mobile phone # (optional) E-mail: darren@iconconstruction.net
<input type="checkbox"/> Authorized Legal Agent, Name and Address (if different):	Business phone # Mobile phone # (optional) E-mail:
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>DARREN GUSDORF</u> Signature: Date: 02/01/2022 Special instructions regarding site access: _____	
Project and Site Information	
Project Name: 1220 9th Street Project	Latitude: _____ Longitude: _____ decimal degree - centroid of site or start & end points of linear project
Proposed Use: Housing development	Tax Map # 13 1 2AC Tax Lot(s) 300 Tax Map # _____ Tax Lot(s) _____
Project Street Address (or other descriptive location):  1220 9th St City: West Linn County: Clackamas	Township 13S Range 1E Section 2 QQ AC Use separate sheet for additional tax and location information Waterway: unknown River Mile: n/a
Wetland Delineation Information	
Wetland Consultant Name, Firm and Address: Juniper Tagliabue & Jodi Forgione Schott & Associates 21018 NE Hwy 99E Aurora, OR 97002	Phone # (503) 678-6007 Mobile phone # (if applicable) E-mail: juniper@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:	Date: 01/31/2022
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: 1.89 ac Total Wetland Acreage: 0.3200
Check Applicable Boxes Below	
<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 \$ <u>500</u> <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 checked="" type="checkbox"/> LWI shows wetlands or waters on parcel Wetland ID code <u>WI-01</u>
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 REPORT  
FOR**

**1220 9<sup>th</sup> Street  
West Linn, Oregon**

T13S, R1E, Section 2AC  
TL# 300  
Clackamas County, Oregon

**Prepared for**

Darren Gusdorf  
Icon Construction and Development  
1969 Willamette Falls Drive, Suite 160  
West Linn, Oregon 97068

**Prepared by**

Jodi Forgione  
&  
Juniper Tagliabue  
of  
Schott & Associates, Inc.

**Date:**

February 2022

**Project #: 2942**

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### (A) Landscape Setting and Land Use

Schott & Associates (S&A) was contracted to conduct a wetland delineation on a 1.89-acre study site located at 1220 9<sup>th</sup> Street, West Linn, Clackamas County, Oregon (T3S, R1E, Section 02AC, tax lot 300). The purpose of this study was to document the presence or absence of existing onsite wetlands and other waters that may be regulated under the Clean Water Act (CWA) by the U.S. Army Corps of Engineers (Corps) and under the Removal-Fill Law by the Oregon Department of State Lands (DSL). This report complies with all standards and requirements set forth in Oregon Administrative Rules (OAR) 141-090-0035 (1-17) for wetland delineation reports and jurisdictional determinations for the purpose of regulating fill and removal within waters of the state. This report will be used to fulfill federal and state regulatory requirements for project permitting.

The study site encompassed the entirety of tax lot #300. The somewhat irregularly triangle shaped property was defined by 9<sup>th</sup> Street to the east and a power line utility easement to the north. To the south was predominantly open space, with a new residential home along the southeast corner of the study site. At the time of the site visit a large residential home was present in the northeastern portion of the site with access via driveway from 9<sup>th</sup> Street to the east. A large barn was located at the western end of the property with a separate driveway access via 9<sup>th</sup> street and a large gravel parking area.

Site topography was characterized by a small knoll with all the buildings and barn located on higher ground, sloping down and offsite along the margins to the north, west and south. Vegetation was generally composed of mowed lawns with a forested area around the house in the eastern portion of the site. North of the barn was bare paddock. West of the barn was quite flat and appeared to have been historically graded and used as a paddock.

Surrounding land use was residential with Willamette Park, located at the confluence of the Tualatin River and the Willamette River, located just to the south and west.

### (B) Site Alterations

Aerial photographs for the time period between 1994 and 2021, available from Google Earth, were reviewed to assess site history. In the earliest available aerial photograph (1994; Figure 5b), the residential home is not clearly visible but believed to be present under tree canopy in the northeast portion of the site. A smaller building is present in the location of the existing barn and clearing for future development or paddock use for livestock may already be underway. From 2000, additional site clearing has occurred and the barn and parking area are clearly visible; the site is in much the same condition as it was during the time of fieldwork (Figure 5a).

### (C) Precipitation Data and Analysis

Precipitation data for the date of fieldwork and the time period preceding it were reviewed to evaluate observed wetland hydrology conditions relative to actual and statistically normal precipitation. Precipitation that deviates from normal ranges can affect site conditions and impact observed wetland hydrology indicators. Precipitation

data were acquired from the Natural Resources Conservation Service (NRCS) Agricultural Applied Climate Information System (AgACIS) for the Oregon City station to provide context for observed hydrological conditions of the study area at the time of the site visit (AgACIS 2021-2022). Table 1 provides the precipitation data, comparison to the normal water year average, as well as normal monthly ranges of precipitation representing 70% probability as reported for the Oregon City NRCS WETS station (NRCS 1990-2020).

Table 1. Precipitation Summary for the Date of Fieldwork and Preceding Water Year (October 1, 2021 – Date of Fieldwork)

Date of Field Visit	Observed Precipitation*				
	Date of Visit (in.)	2 weeks prior (in.)	Water Year to-Date (in.)	Normal Water Year to-Date (in.)**	% of Normal Water Year-to-Date
January 3, 2022	2.06	2.27+	22.14	17.44	127%

\*Data provided by NRCS AgACIS data from the Oregon City Station, OR, 2021-2022. Data available for month of December is incomplete.

\*\*Data provided by NRCS AgCIS data from Oregon City, October 2021-December 2021.

Table 2. Precipitation Summary for Three Months Preceding Fieldwork and Comparison to WETS Average and Normal Range

Month	Total Precipitation (inches)*	WETS Average (inches)**	WETS Normal Range (inches)**	% of Normal
December	6.64+	7.02	4.95-8.32	95%
November	5.92	6.27	4.34-7.46	94%
October	7.26	4.15	2.66-5.00	175%

\*Data provided by NRCS AgACIS data from Oregon City Station, OR, 2021-2022. Data available for month of December incomplete.

\*\*Data provided by NRCS WETS station for the Oregon City Station, OR, 1990-2020.

Fieldwork took place on January 3, 2022, when a record 2.06 inches of precipitation was observed. Recorded precipitation for the month of December was incomplete but in the two weeks preceding fieldwork, at least 2.27 inches of precipitation was observed. Precipitation observed in the month of October was well above the WETS average and normal range. Precipitation observed November and December\* were both below the WETs average but within normal range. Precipitation for the water year (October 1, 2021-January 3, 2022) was observed at 127% of normal (22.14 inches) through the month of December. Due to recent heavy rainfall and higher than average water year to date it is presumed that groundwater and surface water levels were higher than normal for midwinter in northwest Oregon.

#### (D) Site Specific Methods

Prior to visiting the site, the following existing data and information was reviewed:

Schott & Associates  
Ecologists and Wetland Specialists  
PO Box 589, Aurora, OR. 97002 P: (503) 678-6007



- Clackamas County tax map (Figure 2)
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), West Linn Local Wetland Inventory (LWI) (Figure 3), and Oregon Department of Forestry (ODF) stream mapping
- U.S. Department of Agriculture (USDA) National Resource Conservation Service (NRCS) gridded Soil Survey Geographic (gSSURGO) database for Clackamas County (Figure 4)
- Recent and historical aerial photographs provided by Google Earth (Figures 5a-5b)
- Department of Oregon Geology and Mineral Industries (DOGAMI) LiDAR data (Figure 6)
- WD#2001-0340; DSL App No. 63410 and Authorization

Two soil series were mapped within the study site boundary according to the USDA NRCS soil survey for Clackamas County. Cloquato silt loam was mapped over most of the site. This is a well-drained series found predominantly in flood plains with 3% hydric inclusions. Wapato silty clay loam was at the northern margin of the site. This poorly drained soil is listed as a hydric soil series as well as containing inclusions of other hydric soils.

Schott & Associates visited the site on January 3, 2022. Data were collected according to methods described in the *1987 Manual* and the *Regional Supplement to the Corps of Engineers Delineation Manual: Western Mountains, Valleys, and Coast (Version 2.0)*. Seven sample plots were established throughout the site to locate the boundaries 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). Plant indicator status was determined using the 2020 National Wetland Plant List (Corps 2020). Onsite streams or drainages were delineated via the ordinary high-water mark (OHWM) as indicated by top of bank, wrack or scour lines, and change in vegetation communities.

All identified wetlands and waters are classified according to the USFWS *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979) and the *Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites* (DSL 2001).

Representative ground level photographs were recorded to document site conditions (Appendix C; Figure 6).

#### (E) Description of All Wetlands and Other Non-Wetland Waters

Based on soils, vegetation and hydrology data gathered in the field, S&A identified one wetland along the northern and western margins of the study site. The wetland occupied the bottom of a broad swale and extended offsite to the north and west. The wetland was bounded by gentle to moderate sloped topography. Wetland, drainage channel, sample plots, and photo point locations are shown on Figure 6.



*Wetland 1* (0.32-ac) was vegetated predominantly by facultative pasture grasses including meadow foxtail (*Alopecurus pratensis*; FAC), colonial bentgrass (*Agrostis capillaris*; FAC), and tall fescue (*Schedonorus arundinaceus*; FAC) along with creeping buttercup (*Ranunculus repens*; FAC). The western edge of the site was terraced and sloped offsite with a distinct elevation change. The area was overgrown with Himalayan blackberry (*Rubus armeniacus*; FAC) and could not be accessed. This boundary was estimated based on the blackberry line and topographic interpretation. The wetland was assessed as a slope HGM class with a Cowardin class of seasonally flooded, palustrine emergent (PEMC).

Soils samples met the Corps hydric soil indicator for redox dark surface (F6). Soils were dark brown (10YR 3/2) in matrix color with common yellow-red redoximorphic concentrations occurring as soft masses. The soil texture was silt loam. Wetland hydrological indicators observed included high water table (A2) and soil saturation (A3).

The wetland was bounded by topographic changes extending upslope to the residential home and barn. Soils in the uplands did not meet hydric soil criteria. Hydrological indicators were present in uplands, however this is assumed in part due to the recent heavy rains.

One drainage channel was identified within the wetland at the western extent of the property flowing from the west, to the east and north. The channel extended offsite to both the north and west. The channel ranged from 2-4 feet wide in width and 1-3 feet in depth with a silty substrate. The channel was well defined to slightly entrenched. Several inches of surface water were flowing during fieldwork. No vegetation was present within the channel. Himalayan blackberry was rooted outside the channel and growing over the channel, making access difficult. It is estimated that the channel is seasonal in flow period. The channel is not identified on the LWI, NWI or any local resources. The feature was assessed as a riverine flow through HGM class with an intermittent riverine streambed (R4SB) aquatic habitat.

Three additional sample plots were placed in the southeastern pasture. Topography was sloped to the east-southeast. Soil samples did not meet hydric soil criteria with distinct redoximorphic features beginning below 10 inches. Hydrological indicators were present as surface water or high-water table. It is assumed that this was directly associated with the recent rains and above average precipitation.

#### (F) Deviation from LWI or NWI

No NWI wetlands or aquatic habitats are mapped on the site. The LWI (Appendix D) shows a wetland closely corresponding to the delineated wetland as mapped in the field (Winterbrook Planning, 2004; WI-01).

#### (G) Mapping Method

Wetland, ordinary high water, photo point, and sample plot locations were recorded with a handheld Trimble GPS unit capable of sub-meter accuracy following differential correction with Pathfinder Office desktop software. These data were converted to ESRI shapefile and mapped using ArcMap 10.6 desktop software.

#### (H) Additional Information

Offsite wetland determination was completed for the subject property in 2001 indicating likely presence of onsite wetland with SE corner of site composed of upland. DSL Application 63410 was submitted in 2021 for development of a home offsite to the south (TL800) and including the southern extent of the study site for road and stormwater improvements. No wetland impacts were proposed and a No State Permit (NSP) letter was issued.

#### (I) Summary and Conclusions

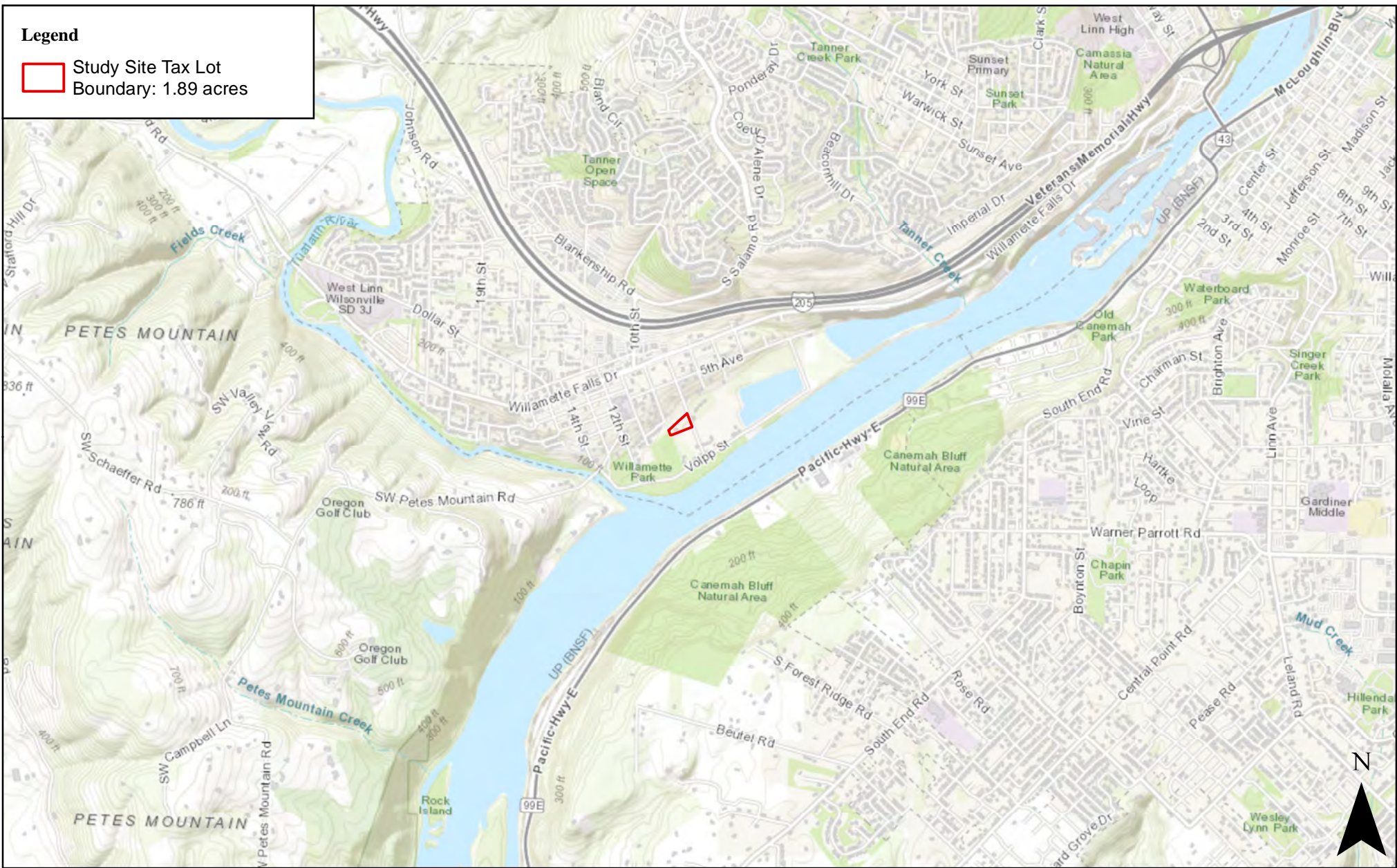
Based on vegetation, soils, hydrology, and ordinary high-water mark data, one 0.32-acre PEMC/slope wetland was mapped at the northern and western margins of the subject property and extended offsite in both directions. A defined channel flowed through the northwest corner of the site bounded on both sides by the wetland.

#### (J) Disclaimer

This report documents the investigation, best professional judgment, and conclusions of the investigators. It is correct and complete to the best of our 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 141-090-0055.

## APPENDIX A: FIGURES

FIGURE 1: LOCATION MAP



Date: 1/31/2022

Data Source: ESRI, 2022; Clackamas County GIS Dept., 2022

Figure 1. Location Map

9th Street Project Site: S&A #2942

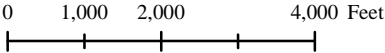


FIGURE 2: TAX MAP







FIGURE 3: WETLAND INVENTORY MAP



**Legend**

-  Study Site Tax Lot  
Boundary: 1.89 acres
-  LWI Wetland



Date: 1/31/2022

Data Source: ESRI, 2022; Clackamas County GIS Dept, 2022;  
USFWS, NWI, 2022; ODF, 2022; Shapiro and Assoc., 1999

Figure 3. Wetland Inventory Map

FIGURE 4: USDA/NRCS SOIL SURVEY MAP



Date: 1/27/2022


Data Source: ESRI, 2022; Clackamas County GIS Dept, 2022; Soil Survey Staff, USDA, NRCS, 1/27/2022

Figure 4. USDA/NRCS Soil Survey Map of Clackamas County

FIGURE 5A: RECENT AERIAL IMAGE



**Legend**

 Study Site Tax Lot  
Boundary: 1.89 acres



Date: 2/2/2022


Data Source: Google Earth, 2022; Clackamas County GIS Dept, 2022

Figure 5a. Recent Aerial Imagery -  
May 10, 2021

FIGURE 5B: HISTORICAL AERIAL IMAGE



**Legend**

 Study Site Tax Lot  
Boundary: 1.89 acres



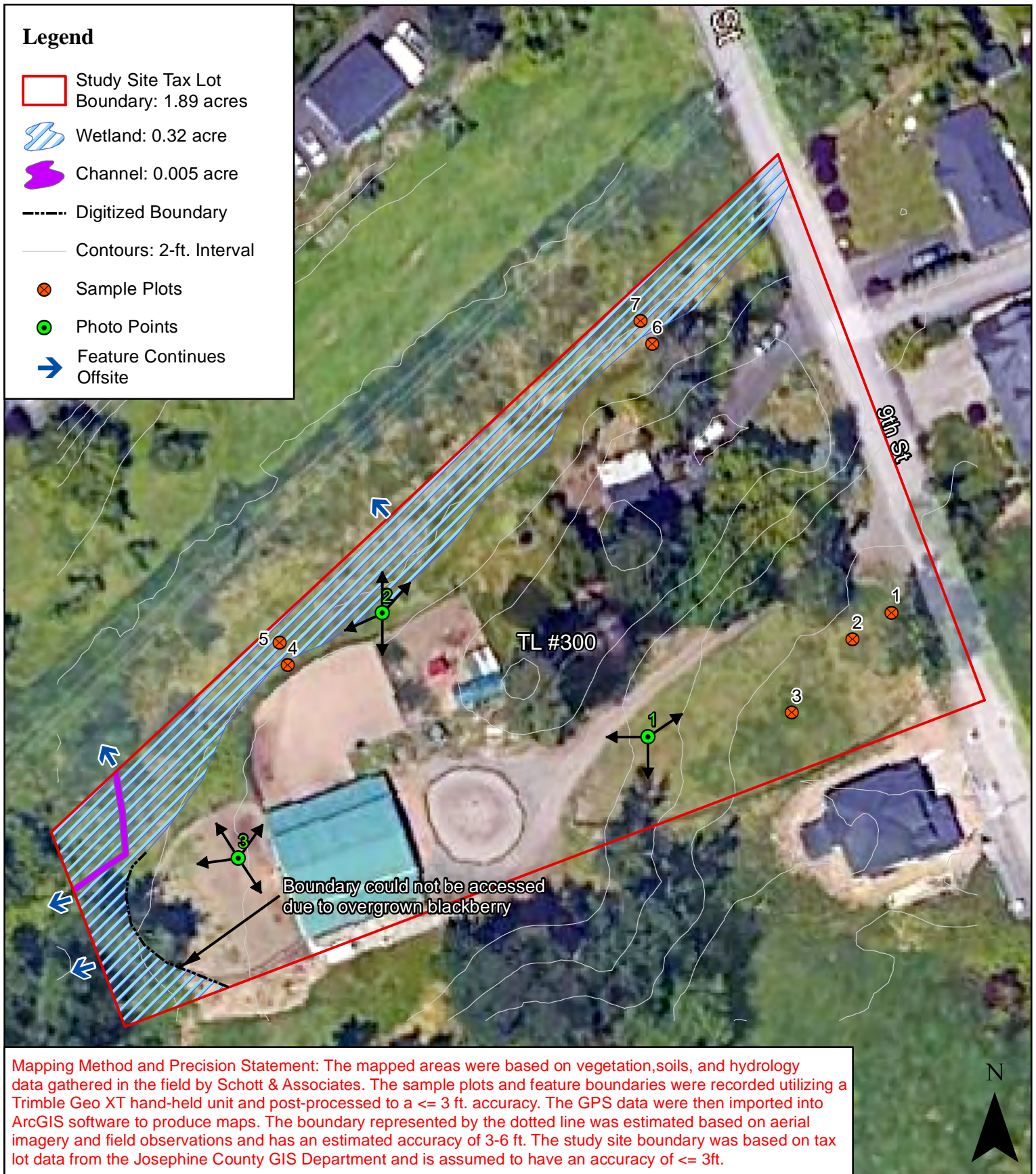
Date: 1/31/2022

Data Source: Google Earth, 2022; Clackamas  
County GIS Dept, 2022

Figure 5b. Historical Aerial Imagery -  
June 19, 1994

FIGURE 6: WETLAND DELINEATION MAP





Date: 2/2/2022

Data Source: Google Earth, 2022; Clackamas County GIS Dept, 2022; DOGAMI, 2009

Figure 6. Wetland Delineation Map

9th Street Project Site: S&A # 2942

APPENDIX B: DATA FORMS



## WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: 1220 9th St City/County: West Linn/Clackamas Sampling Date: Jan.3, 2022  
 Applicant/Owner: Icon Construction and Development State: OR Sampling Point: 1  
 Investigator(s): JRF Section, Township, Range: 2A, T3S, R1E  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 45.342360048 Long: -122.647635548 Datum: 0-2%  
 Soil Map Unit Name: Cloquato silt loam NWI Classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If no, explain in Remarks)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" Present? Yes        No x  
 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 <u>x</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>      </u> No <u>x</u>
Hydric Soil Present? Yes <u>      </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u>x</u> No <u>      </u>	
Hydrology well above normal with record rainfall occurring the day of the site visit.	

### VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?																	
1. <u>Populus balsamifera</u>	15	Y	[FAC]	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. <u>      </u>																				
3. <u>      </u>																				
4. <u>      </u>																				
Total Cover: <u>15</u>																				
<b>Shrub Stratum</b>																				
1. <u>      </u>				<b>Prevalence Index Worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>      </u> x1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species <u>      </u> x2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species <u>      </u> x3 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species <u>      </u> x4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species <u>      </u> x5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td style="text-align: center;"><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>      </u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>      </u> x1 =	<u>0</u>	FACW species <u>      </u> x2 =	<u>0</u>	FAC species <u>      </u> x3 =	<u>0</u>	FACU species <u>      </u> x4 =	<u>0</u>	UPL species <u>      </u> x5 =	<u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>      </u>	
Total % Cover of:	Multiply by:																			
OBL species <u>      </u> x1 =	<u>0</u>																			
FACW species <u>      </u> x2 =	<u>0</u>																			
FAC species <u>      </u> x3 =	<u>0</u>																			
FACU species <u>      </u> x4 =	<u>0</u>																			
UPL species <u>      </u> x5 =	<u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>      </u>																				
2. <u>      </u>																				
3. <u>      </u>																				
4. <u>      </u>																				
5. <u>      </u>																				
Total Cover: <u>0</u>																				
<b>Herb Stratum</b>																				
1. <u>Lolium perenne</u>	30	Y	[FAC]	<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation <u>      </u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptation <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. <u>Alopecurus pratensis</u>	55	Y	[FAC]																	
3. <u>Trifolium repens</u>	10		[FAC]																	
4. <u>Hypochaeris radicata</u>	5		[FACU]																	
5. <u>      </u>																				
6. <u>      </u>																				
7. <u>      </u>																				
8. <u>      </u>																				
9. <u>      </u>																				
10. <u>      </u>																				
11. <u>      </u>																				
Total Cover: <u>100</u>																				
<b>Woody Vine Stratum</b>																				
1. <u>      </u>				<b>Hydrophytic Vegetation Present?</b> Yes <u>x</u> No <u>      </u>																
2. <u>      </u>																				
Total Cover: <u>0</u>																				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>																				

Remarks:

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-5	10 YR 3/2	95	10YR3/3	5	C	M	SiL	
5-10	10 YR 3/2	95	10YR3/3	5	C	M	SiL	
10-16	10YR3/2	95	10YR3/4	5	C	M	SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                                  | <input type="checkbox"/> 2 cm Muck (A10)            |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                              | <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>except MLRA 1</b> ) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |   |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |   |
| <input type="checkbox"/> Sandy Muck Mineral (S1)           | <input type="checkbox"/> Depleted Dark Surface (F7)                        |   |
| <input type="checkbox"/> Sandy gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                            |   |

<sup>3</sup>Indicators 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 (any one indicator is sufficient)

Secondary Indicators (2 or more required)

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A and 4B</b> ) | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A and 4B</b> ) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)   | <input type="checkbox"/> Drainage Patterns (B10)                                   |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                      | <input type="checkbox"/> Dry-Season Water Table (C2)                               |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                                       | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                    | <input type="checkbox"/> Geomorphic Position (D2)                                  |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                    | <input type="checkbox"/> Shallow Aquitard (D3)                                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)                       | <input type="checkbox"/> FAC-Neutral Test (D5)                                     |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                 | <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                   |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)                                       | <input type="checkbox"/> Frost-Heave Hummocks (D7)                                 |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |   |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |   |  |

**Field Observations:**

Surface Water Present? Yes   x   No \_\_\_\_\_ Depth (inches):   0    
 Water table Present? Yes   X   No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes   X   No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Water at surface. Area has puddled water from recent rains.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: 1220 9th St City/County: West Linn/Clackamas Sampling Date: Jan.3, 2022  
 Applicant/Owner: Icon Construction and Development State: OR Sampling Point: 2  
 Investigator(s): JRF Section, Township, Range: 2A, T3S, R1E  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 45.342323893 Long: -122.647706545 Datum: 0-2%  
 Soil Map Unit Name: Cloquato silt loam NWI Classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" Present? Yes \_\_\_\_\_ No x  
 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 <u>x</u> No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes _____ No <u>x</u>
Hydric Soil Present? Yes _____ No <u>x</u>		Yes _____ No <u>x</u>
Wetland Hydrology Present? Yes <u>x</u> No _____		
Hydrology well above normal with record rainfall occurring the day of the site visit.		

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
<b>Shrub Stratum</b>				
1. _____	_____	_____	_____	<b>Prevalence Index Worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x1 = <u>0</u> FACW species _____ x2 = <u>0</u> FAC species _____ x3 = <u>0</u> FACU species _____ x4 = <u>0</u> UPL species _____ x5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<b>Herb Stratum</b>				
1. <u>Lolium perenne</u>	<u>30</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptation <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Alopecurus pratensis</u>	<u>40</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	
3. <u>Ranunculus repens</u>	<u>20</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	
4. <u>Rumex crispus</u>	<u>10</u>		<input type="checkbox"/> FAC <input type="checkbox"/>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Total Cover: <u>100</u>				
<b>Woody Vine Stratum</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>x</u> No _____
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-9	10 YR 3/2	100					SiL	
9-12	10 YR 3/2	95	10YR3/3	5	C	M	SiL	
12-16	10YR3/2	95	10YR3/4	5	C	M	SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Muck Mineral (S1)
- Sandy gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

<sup>3</sup>Indicators 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 (any one indicator is sufficient)

- x   Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes   x   No \_\_\_\_\_ Depth (inches):   0    
 Water table Present? Yes   X   No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes   X   No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Water at surface. Above average recent precipitation and water year.

## WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: 1220 9th St City/County: West Linn/Clackamas Sampling Date: Jan.3, 2022  
 Applicant/Owner: Icon Construction and Development State: OR Sampling Point: 3  
 Investigator(s): JRF Section, Township, Range: 2A, T3S, R1E  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 45.342225898 Long: -122.647814941 Datum: 0-2%  
 Soil Map Unit Name: Cloquato silt loam NWI Classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" Present? Yes \_\_\_\_\_ No x  
 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 <u>x</u> No _____ Hydric Soil Present? Yes _____ No <u>x</u> Wetland Hydrology Present? Yes <u>x</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>x</u>
Hydrology well above normal with record rainfall occurring the day of the site visit.	

### VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
Total Cover: <u>0</u>																				
<b>Shrub Stratum</b>																				
1. _____	_____	_____	_____	<b>Prevalence Index Worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____ x1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species _____ x2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species _____ x3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species _____ x4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species _____ x5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____ x1 =	<u>0</u>	FACW species _____ x2 =	<u>0</u>	FAC species _____ x3 =	<u>0</u>	FACU species _____ x4 =	<u>0</u>	UPL species _____ x5 =	<u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____ x1 =	<u>0</u>																			
FACW species _____ x2 =	<u>0</u>																			
FAC species _____ x3 =	<u>0</u>																			
FACU species _____ x4 =	<u>0</u>																			
UPL species _____ x5 =	<u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = _____																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
Total Cover: <u>0</u>																				
<b>Herb Stratum</b>																				
1. <u>Schedonorus arundinaceus</u>	40	Y	☐FAC☐	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptation <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. <u>Alopecurus pratensis</u>	20	Y	☐FAC☐																	
3. <u>Ranunculus repens</u>	10		☐FAC☐																	
4. <u>Rumex crispus</u>	5		☐FAC☐																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
Total Cover: <u>75</u>																				
<b>Woody Vine Stratum</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>x</u> No _____																
2. _____	_____	_____	_____																	
Total Cover: <u>0</u>																				
% Bare Ground in Herb Stratum <u>25</u> % Cover of Biotic Crust <u>0</u>																				

Remarks:

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-7	10 YR 3/2	100					SiL	
7-12	10 YR 3/2	98	10YR3/3	2	C	M	SiL	
12-16	10YR3/2	85	10YR3/4	15	C	M	SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                                  | <input type="checkbox"/> 2 cm Muck (A10)            |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                              | <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>except MLRA 1</b> ) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |   |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |   |
| <input type="checkbox"/> Sandy Muck Mineral (S1)           | <input type="checkbox"/> Depleted Dark Surface (F7)                        |   |
| <input type="checkbox"/> Sandy gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                            |   |

<sup>3</sup>Indicators 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 (any one indicator is sufficient)

Secondary Indicators (2 or more required)

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A and 4B</b> ) | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A and 4B</b> ) |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Salt Crust (B11)   | <input type="checkbox"/> Drainage Patterns (B10)                                   |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                      | <input type="checkbox"/> Dry-Season Water Table (C2)                               |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                                       | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                    | <input type="checkbox"/> Geomorphic Position (D2)                                  |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                    | <input type="checkbox"/> Shallow Aquitard (D3)                                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)                       | <input type="checkbox"/> FAC-Neutral Test (D5)                                     |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                 | <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                   |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)                                       | <input type="checkbox"/> Frost-Heave Hummocks (D7)                                 |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |   |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |   |  |

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No   x   Depth (inches): \_\_\_\_\_  
 Water table Present? Yes   X   No \_\_\_\_\_ Depth (inches):   10    
 Saturation Present? Yes   X   No \_\_\_\_\_ Depth (inches):   5    
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Above average recent precipitation and water year.



**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: 1220 9th St City/County: West Linn/Clackamas Sampling Date: Jan.3, 2022  
 Applicant/Owner: Icon Construction and Development State: OR Sampling Point: 4  
 Investigator(s): JRF Section, Township, Range: 2A, T3S, R1E  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 45.342270722 Long: -122.648750364 Datum: 0-2%  
 Soil Map Unit Name: Cloquato silt loam NWI Classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If no, explain in Remarks)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" Present? Yes        No x  
 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 <u>x</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>      </u> No <u>x</u>
Hydric Soil Present? Yes <u>      </u> No <u>x</u>		Yes <u>      </u> No <u>x</u>
Wetland Hydrology Present? Yes <u>x</u> No <u>      </u>		
Hydrology well above normal with record rainfall occurring the day of the site visit.		

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
<b>Shrub Stratum</b>				
1. <u>Rubus armeniacus</u>	10	Y	[FAC]	<b>Prevalence Index Worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x1 = <u>0</u> FACW species _____ x2 = <u>0</u> FAC species _____ x3 = <u>0</u> FACU species _____ x4 = <u>0</u> UPL species _____ x5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>10</u>				
<b>Herb Stratum</b>				
1. <u>Schedonorus arundinaceus</u>	70	Y	[FAC]	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptation <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Agrostis capillaris</u>	25	Y	[FAC]	
3. <u>Ranunculus repens</u>	5		[FAC]	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Total Cover: <u>100</u>				
<b>Woody Vine Stratum</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>x</u> No <u>      </u>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-16	10 YR 3/2	100					SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>except MLRA 1</b> )	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Muck Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<sup>3</sup>Indicators 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 (any one indicator is sufficient)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A and 4B</b> )	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A and 4B</b> )
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No   x   Depth (inches): \_\_\_\_\_  
 Water table Present? Yes   X   No \_\_\_\_\_ Depth (inches):   8    
 Saturation Present? Yes   X   No \_\_\_\_\_ Depth (inches):   7    
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Above average recent precipitation and water year.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: 1220 9th St City/County: West Linn/Clackamas Sampling Date: Jan.3, 2022  
 Applicant/Owner: Icon Construction and Development State: OR Sampling Point: 5  
 Investigator(s): JRF Section, Township, Range: 2A, T3S, R1E  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 45.342299257 Long: -122.648766270 Datum: 0-2%  
 Soil Map Unit Name: Wapato silty clay loam NWI Classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If no, explain in Remarks)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" Present? Yes        No x  
 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 <u>x</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>x</u> No <u>      </u>
Hydric Soil Present? Yes <u>x</u> No <u>      </u>		Yes <u>x</u> No <u>      </u>
Wetland Hydrology Present? Yes <u>x</u> No <u>      </u>		
Hydrology well above normal with record rainfall occurring the day of the site visit.		

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
<b>Shrub Stratum</b>				
1. _____	_____	_____	_____	<b>Prevalence Index Worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x1 = <u>0</u> FACW species _____ x2 = <u>0</u> FAC species _____ x3 = <u>0</u> FACU species _____ x4 = <u>0</u> UPL species _____ x5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>0</u>				
<b>Herb Stratum</b>				
1. <u>Schedonorus arundinaceus</u>	<u>60</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptation <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Alopecurus pratensis</u>	<u>25</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	
3. <u>Ranunculus repens</u>	<u>15</u>		<input type="checkbox"/> FAC <input type="checkbox"/>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Total Cover: <u>100</u>				
<b>Woody Vine Stratum</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>x</u> No <u>      </u>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-16	10 YR 3/2	85	10YR3/4	15	C	M	SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>except MLRA 1</b> )	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Muck Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks: \_\_\_\_\_

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A and 4B</b> )	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A and 4B</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 0  
 Water table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Water at surface. Above average recent precipitation and water year.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: 1220 9th St City/County: West Linn/Clackamas Sampling Date: Jan.3, 2022  
 Applicant/Owner: Icon Construction and Development State: OR Sampling Point: 6  
 Investigator(s): JRF Section, Township, Range: 2A, T3S, R1E  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 45.342701761 Long: -122.648090988 Datum: 0-2%  
 Soil Map Unit Name: Cloquato silt loam NWI Classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If no, explain in Remarks)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" Present? Yes        No x  
 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 <u>x</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>      </u> No <u>x</u>
Hydric Soil Present? Yes <u>      </u> No <u>x</u>		Yes <u>      </u> No <u>x</u>
Wetland Hydrology Present? Yes <u>x</u> No <u>      </u>		
Hydrology well above normal with record rainfall occurring the day of the site visit.		

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
<b>Shrub Stratum</b>				
1. _____	_____	_____	_____	<b>Prevalence Index Worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x1 = <u>0</u> FACW species _____ x2 = <u>0</u> FAC species _____ x3 = <u>0</u> FACU species _____ x4 = <u>0</u> UPL species _____ x5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>0</u>				
<b>Herb Stratum</b>				
1. <u>Schedonorus arundinaceus</u>	<u>30</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptation <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Agrostis capillaris</u>	<u>55</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	
3. <u>Ranunculus repens</u>	<u>5</u>		<input type="checkbox"/> FAC <input type="checkbox"/>	
4. <u>Dactylis glomerata</u>	<u>10</u>		<input type="checkbox"/> FACU <input type="checkbox"/>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Total Cover: <u>100</u>				
<b>Woody Vine Stratum</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>x</u> No <u>      </u>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-16	10 YR 3/2	100					L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>except MLRA 1</b> )	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Muck Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A and 4B</b> )	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A and 4B</b> )
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water table Present? Yes  No \_\_\_\_\_ Depth (inches): 6  
 Saturation Present? Yes  No \_\_\_\_\_ Depth (inches): 5  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Above average recent precipitation and water year.



**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: 1220 9th St City/County: West Linn/Clackamas Sampling Date: Jan.3, 2022  
 Applicant/Owner: Icon Construction and Development State: OR Sampling Point: 7  
 Investigator(s): JRF Section, Township, Range: 2A, T3S, R1E  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 45.342731346 Long: -122.648114417 Datum: 0-2%  
 Soil Map Unit Name: Wapato silty clay loam NWI Classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" Present? Yes \_\_\_\_\_ No x  
 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 <u>x</u> No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>x</u> No _____
Hydric Soil Present? Yes <u>x</u> No _____		Yes <u>x</u> No _____
Wetland Hydrology Present? Yes <u>x</u> No _____		
Hydrology well above normal with record rainfall occurring the day of the site visit.		

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
<b>Shrub Stratum</b>				
1. _____	_____	_____	_____	<b>Prevalence Index Worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x1 = <u>0</u> FACW species _____ x2 = <u>0</u> FAC species _____ x3 = <u>0</u> FACU species _____ x4 = <u>0</u> UPL species _____ x5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<b>Herb Stratum</b>				
1. <u>Schedonorus arundinaceus</u>	<u>20</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptation <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Alopecurus pratensis</u>	<u>45</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	
3. <u>Ranunculus repens</u>	<u>20</u>	<u>Y</u>	<input type="checkbox"/> FAC <input type="checkbox"/>	
4. <u>Agrostis capillaris</u>	<u>10</u>		<input type="checkbox"/> FAC <input type="checkbox"/>	
5. <u>Rumex crispus</u>	<u>5</u>		<input type="checkbox"/> FAC <input type="checkbox"/>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Total Cover: <u>100</u>				
<b>Woody Vine Stratum</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>x</u> No _____
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-16	10 YR 3/2	85	10YR3/4	15	C	M	SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Muck Mineral (S1)
- Sandy gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

<sup>3</sup>Indicators 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

Remarks: \_\_\_\_\_

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water table Present? Yes  No  Depth (inches): 1  
 Saturation Present? Yes  No  Depth (inches): 0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Water at surface. Above average recent precipitation and water year.

APPENDIX C: GROUND LEVEL PHOTOGRAPHS



Photo Point 1. Facing east.



Photo Point 1. Facing south.





Photo Point 1. Facing west.



Photo Point 2. Facing northeast. Blue flags demarcate approximate wetland boundary.





Photo Point 2. Facing north.



Photo Point 2. Facing southwest. Blue flags demarcate approximate wetland boundary.





Photo Point 2. Facing south.



Photo Point 3. Facing west.





Photo Point 3. Facing northwest.



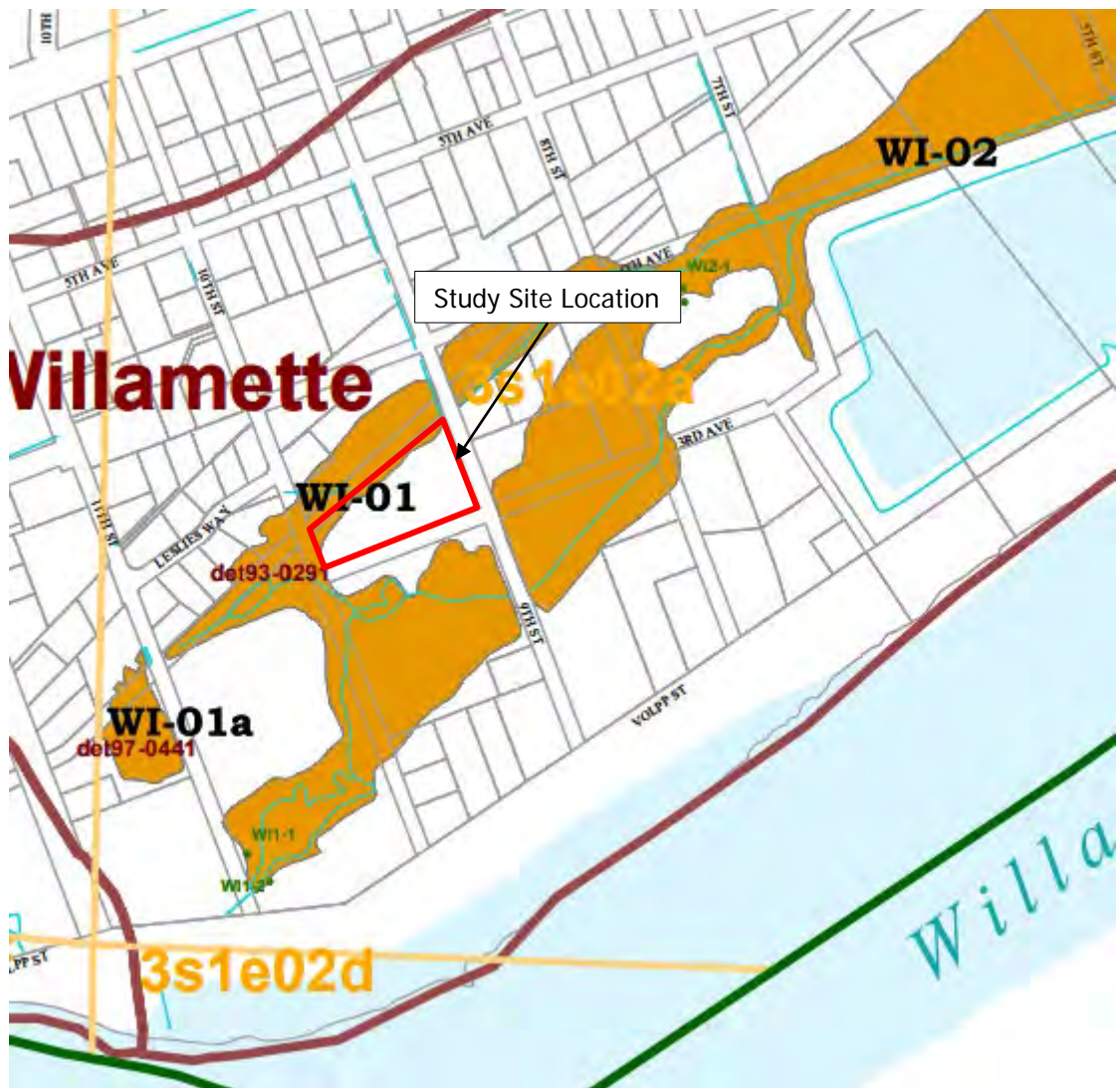
Photo Point 3. Facing northeast.



Photo Point 3. Facing southeast.

APPENDIX D: LOCAL WETLAND INVENTORY





APPENDIX D. West Linn Local Wetland Inventory  
 (Winterbrook Planning 2002)  
 9th St Project Site  
 S&A#2942

Schott & Associates  
 P.O. Box 589  
 Aurora, OR. 97002  
 503.678.6007



## APPENDIX E: LITERATURE CITATIONS

- 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, 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.
- Natural Resource Conservation Service Water Agricultural Applied Climate Information Center: Portland WTR B. 1981-2020. U.S. Department of Agriculture. Available: <http://agacis.rcc-acis.org>
- Oregon Department of State Lands. 2012. A Guide to the Removal-Fill Permit Process. Salem, OR. April 2012.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed [1/23/2020]
- U.S. Army Corps of Engineers 2020. National Wetland Plant List, Federal Register Citation 86FR 60449. U.S. Army Corps of Engineers Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH

## Juniper Tagliabue

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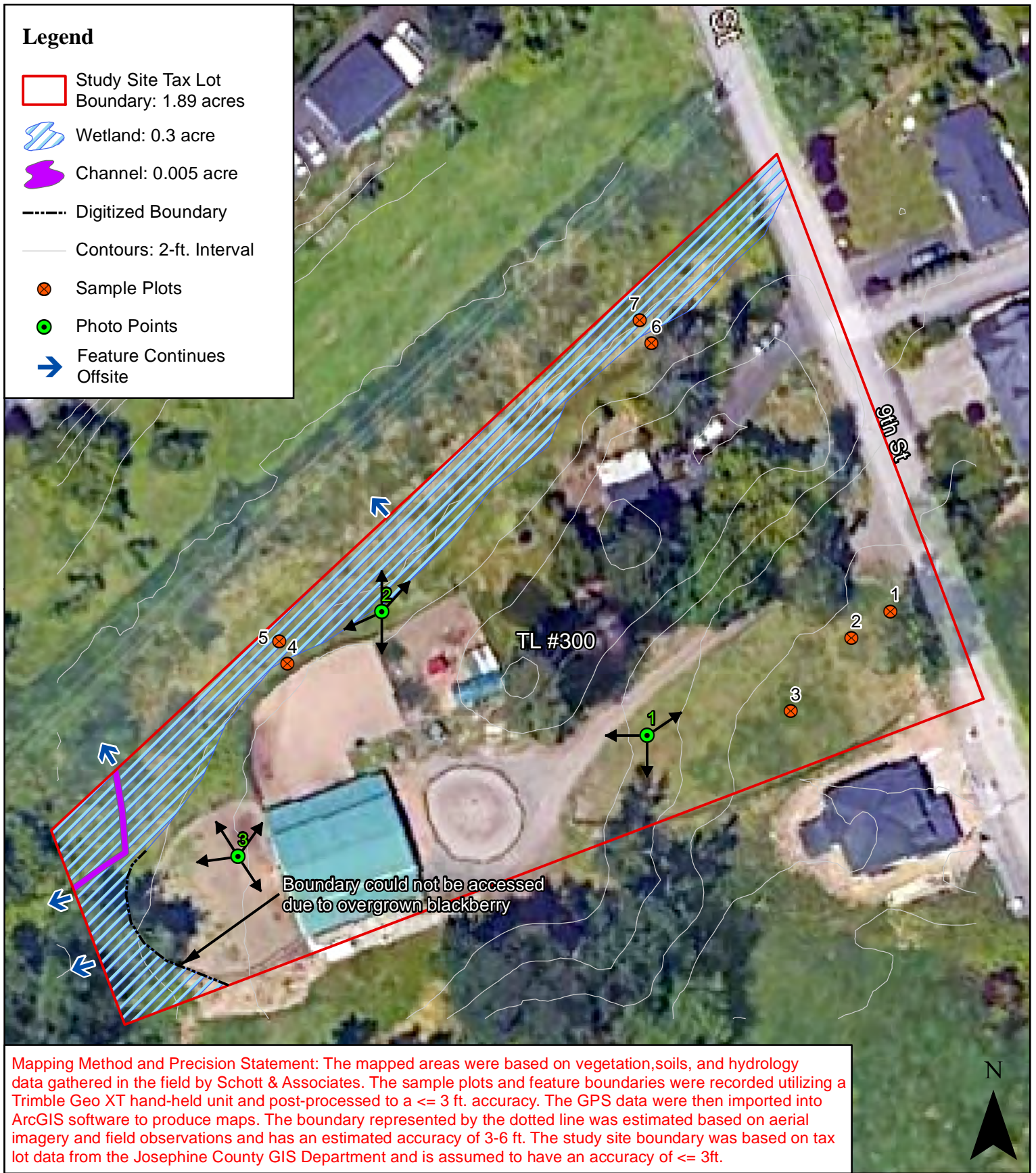
**From:** Juniper Tagliabue  
**Sent:** Tuesday, 22 March 2022 11:11 AM  
**To:** STEVENSON Chris DSL  
**Subject:** 1220 9th St\_WD2022-0084; S&A2492  
**Attachments:** Fig6\_WetlandMap.pdf

Good Afternoon Chris,

Please accept the attached revised map for the 9<sup>th</sup> St project in West Linn referenced above. After submittal of the delineation report the site was surveyed by a PLS. Due to a slight discrepancy between surveyed property boundaries and County GIS tax lot data the area of the onsite wetland has been reduced from 0.32-acre to 0.3-acres. Please note that the mapping accuracy is within 3 feet as indicated in the report and the mapping accuracy/method has not been changed. The revised wetland area information is provided for consistency and to allow DSL to reference the higher accuracy data. Please replace Figure 6 in the submitted report with the attached map. Wetland area within the report should be 0.3 rather than 0.32-acre. Please let me know if you have any questions or need anything additional.

Sincerely,

Juniper Tagliabue  
Schott and Associates  
PO Box 589  
Aurora, OR 97002



Date: 21/3/2022

Data Source: Google Earth, 2022; Clackamas County GIS Dept, 2022; DOGAMI, 2009

Figure 6. Wetland Delineation Map

9th Street Project Site: S&A # 2942



Owner/Applicant:  
 Icon Construction & Development, LLC  
 1969 Willamette Falls Dr., Suite 260  
 West Linn, OR 97068  
 PH: (503) 657-0406

Engineer:  
 Theta Engineering  
 PO Box 1345  
 Lake Oswego, OR 97035  
 PH: (503) 481-8822

Legal: 31E02AC 300 (Tract D Portion)

Surveyor:  
 Centerline Concepts, Inc.  
 19376 Molalla Ave Suite 120  
 Oregon City, OR 97045  
 PH: (503) 650-0188

Water: City of West Linn

Sewer: City of West Linn

Contours: Centerline Concepts, Inc.

Site Area: 49,129 square feet

Zoning: R-10

**DENSITY CALCULATIONS:**

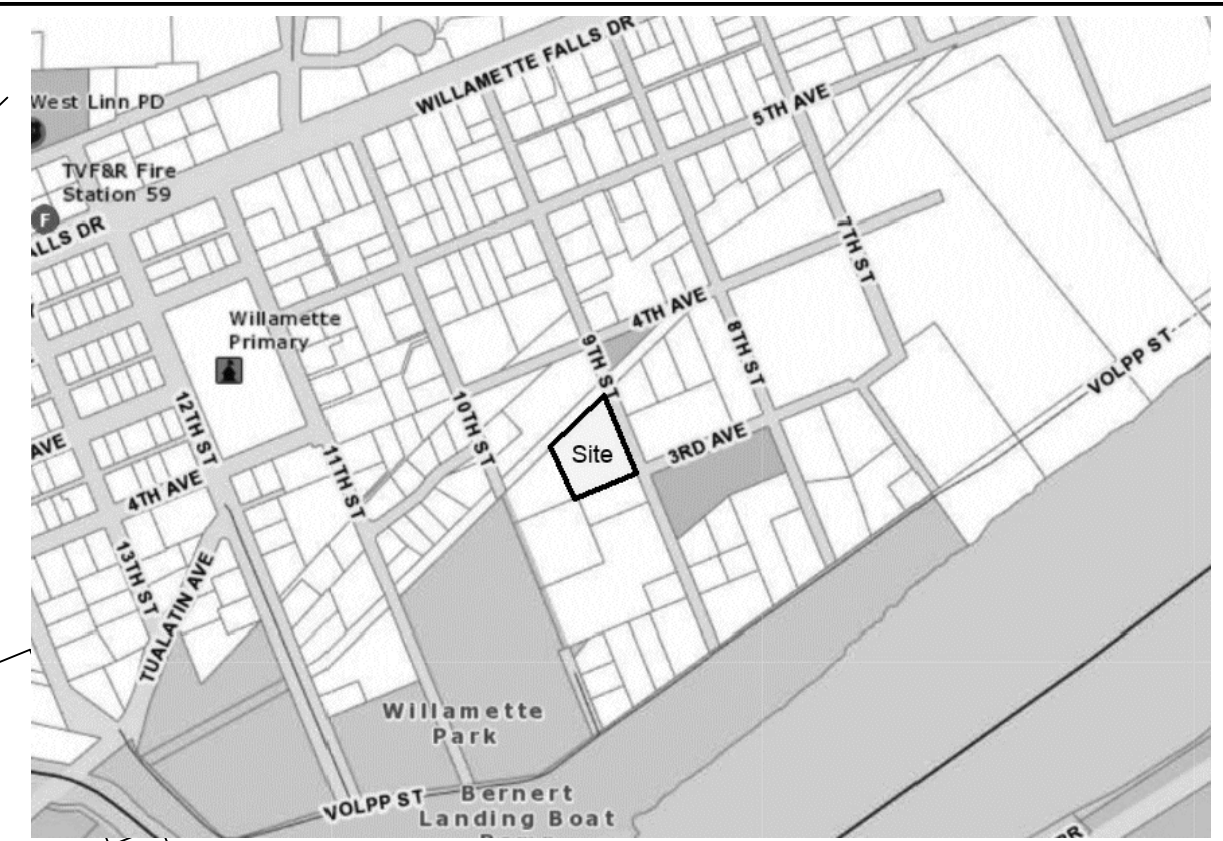
Gross Site Area: 49,129 square feet.

Type I & II Lands: 0 square feet.

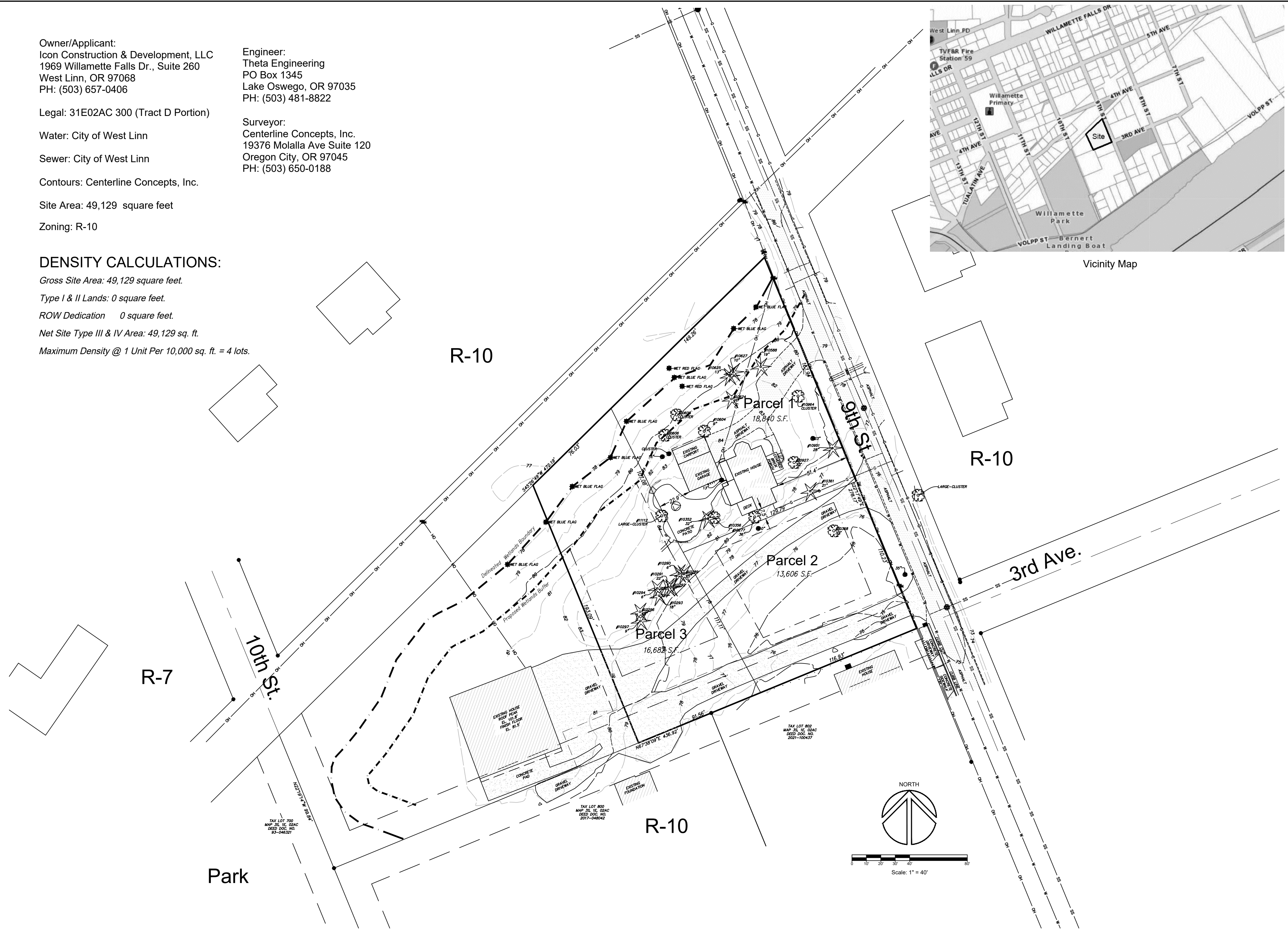
ROW Dedication 0 square feet.

Net Site Type III & IV Area: 49,129 sq. ft.

Maximum Density @ 1 Unit Per 10,000 sq. ft. = 4 lots.



Vicinity Map



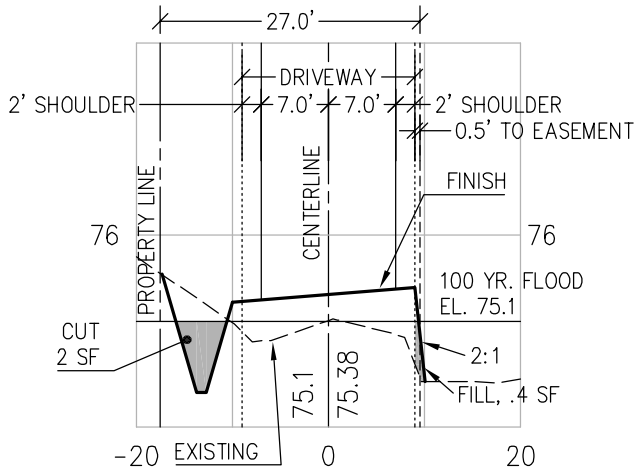
DESIGNED: REG			
DRAWN: REG			
SCALE: 1" = 40'			
DATE: 3-28-2022			
FILE: 21-ICN-105	DATE	NO.	REVISION

Richard E. Givens, Planning Consultant  
 18680 Sunblaze Dr.  
 Oregon City, OR 97045  
 PH: (503) 351-8204

APPLICANT: Icon Construction & Development, LLC  
 1969 Willamette Falls Dr # 260  
 West Linn, OR 97068  
 PH: (503) 657-0406

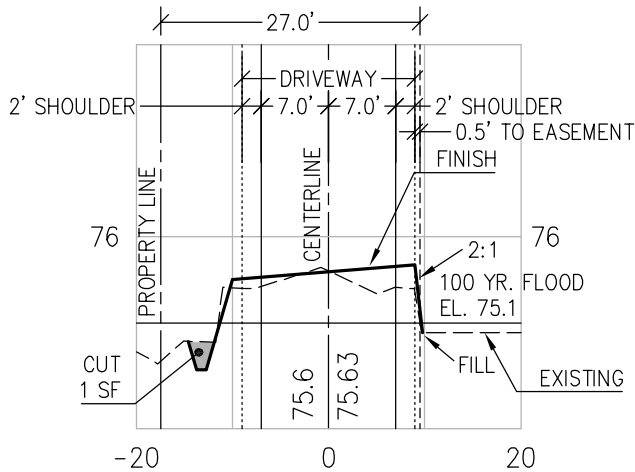
**Tentative Plan**  
 1220 9th St. Partition

# 0+50

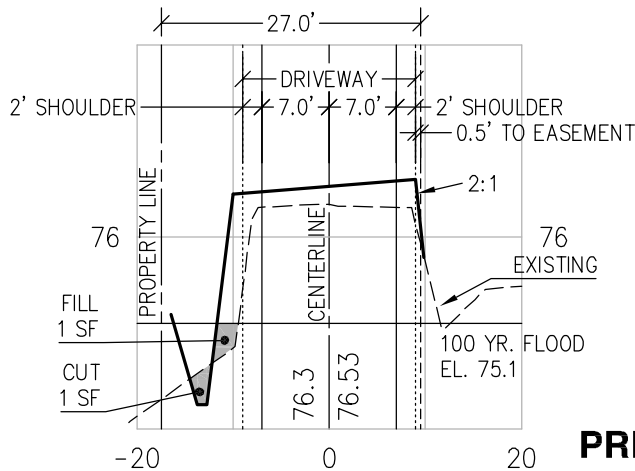


STATION	DIST.	CUT	FILL	VOL. CUT	VOL. FILL
0+00		0 SF	0 SF		
0+50	50	2 SF	0 SF	50	
1+00	50	1 SF	0 SF	75	
1+35	35	1 SF	1 SF	85	18
TOTAL				5.9 C.Y. CUT	0.6 C.Y. FILL
				NO NET FILL	

# 1+00



# 1+35



## PRELIMINARY CALCULATIONS FOR PRIVATE DRIVE CUT/FILL IN 100 YEAR FLOOD PLAIN

SCALE: 1" = 20' HORIZONTAL  
1" = 2' VERTICAL

2022-129Z

**Theta, llc**

ENGINEERING - SURVEYING - PLANNING

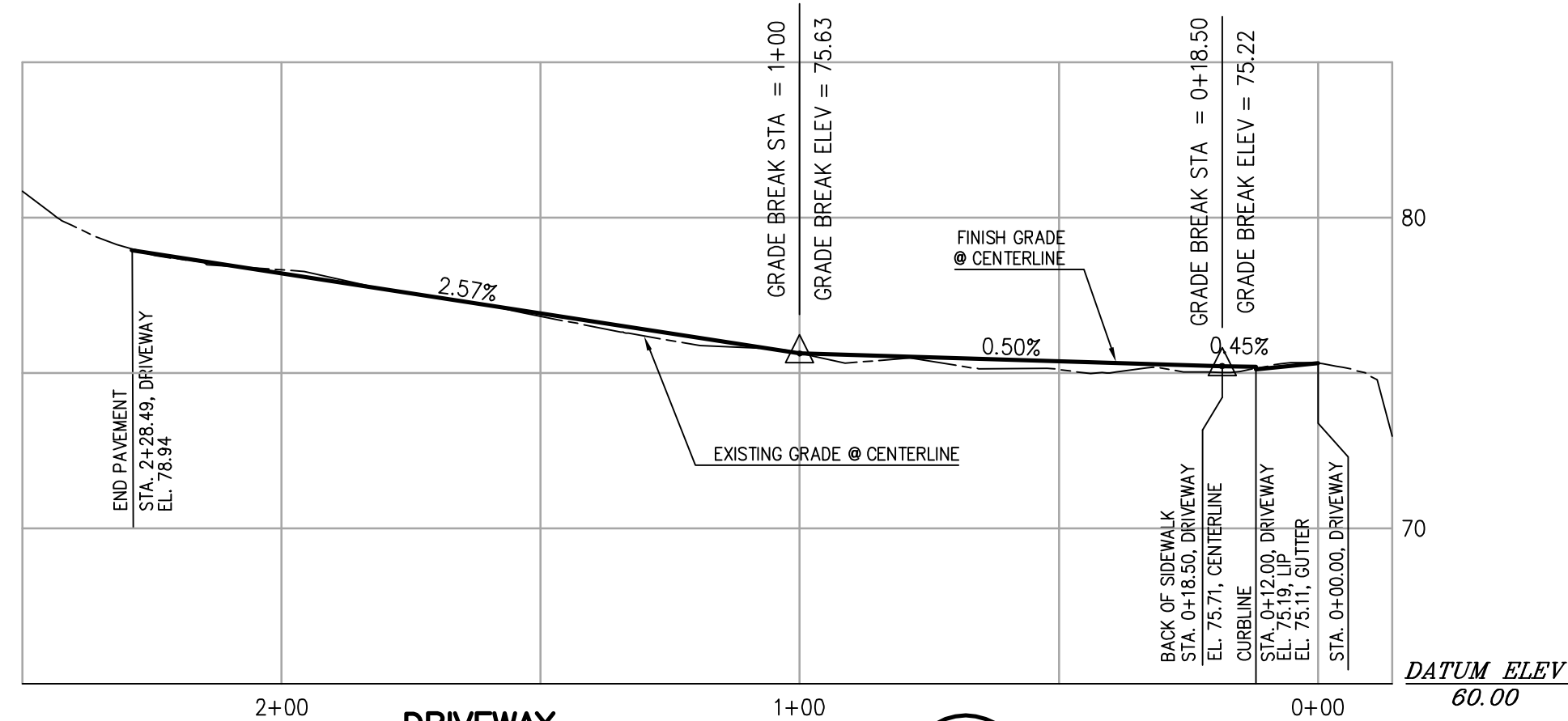
PO Box 1345  
Lake Oswego, Oregon 97035

503-481-8822  
email: thetaeng@comcast.net

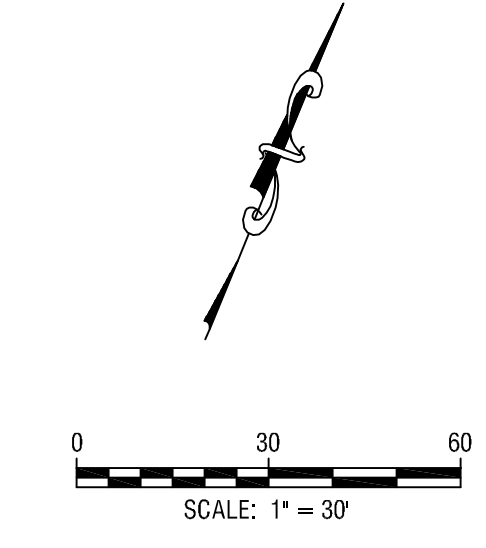
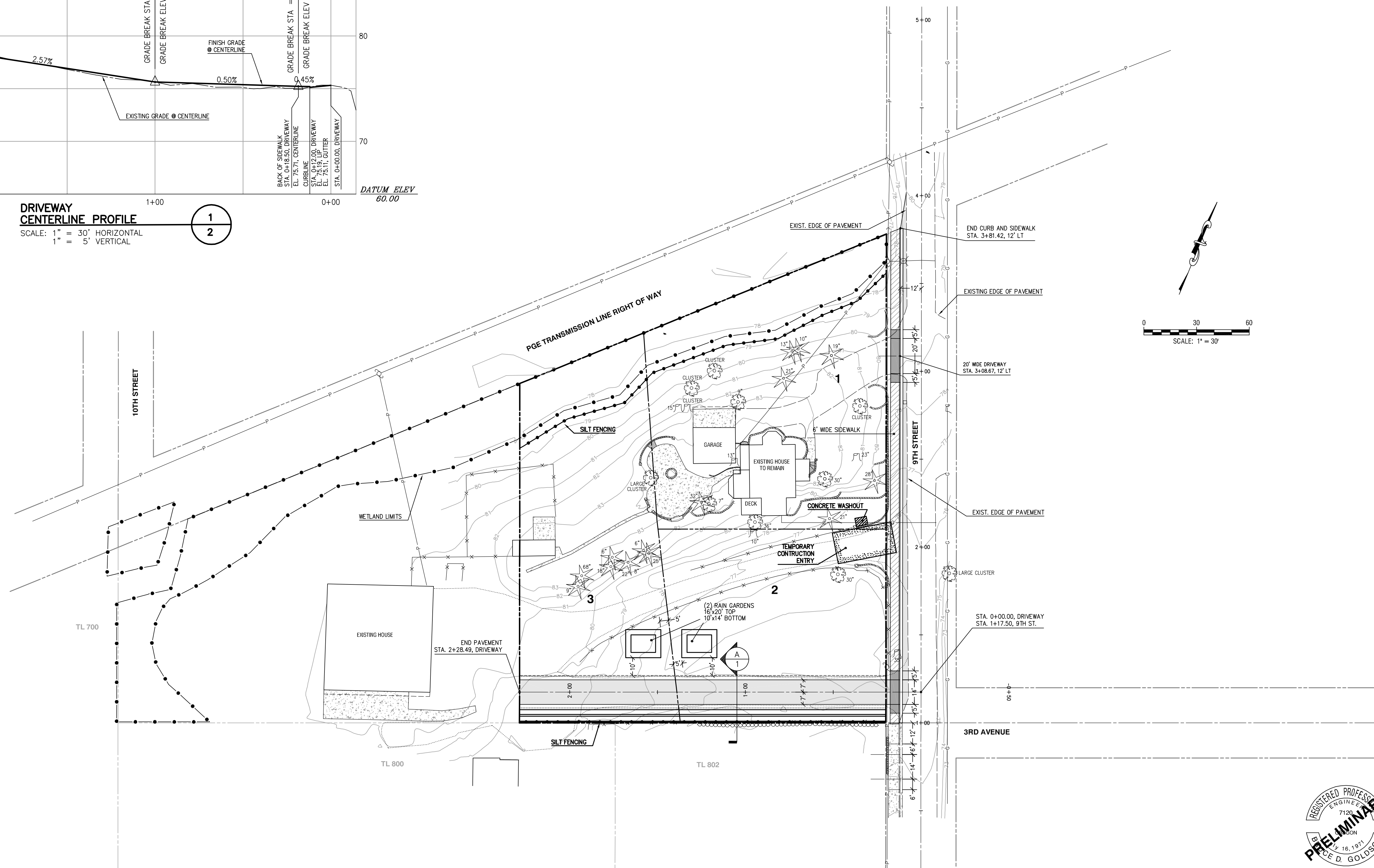
1220 9th Street - Partition of Lot D  
West Linn, Oregon

1  
1





1  
2



EXPIRES: 06/30/2023  
 SIGNATURE DATE: 03/29/2022

2022-129Z

DESIGNED: BDG			
DRAWN: BJS			
SCALE: 1" = 30'			
DATE: March, 2022			
FILE: Partition D Civil1	DATE	NO.	REVISION

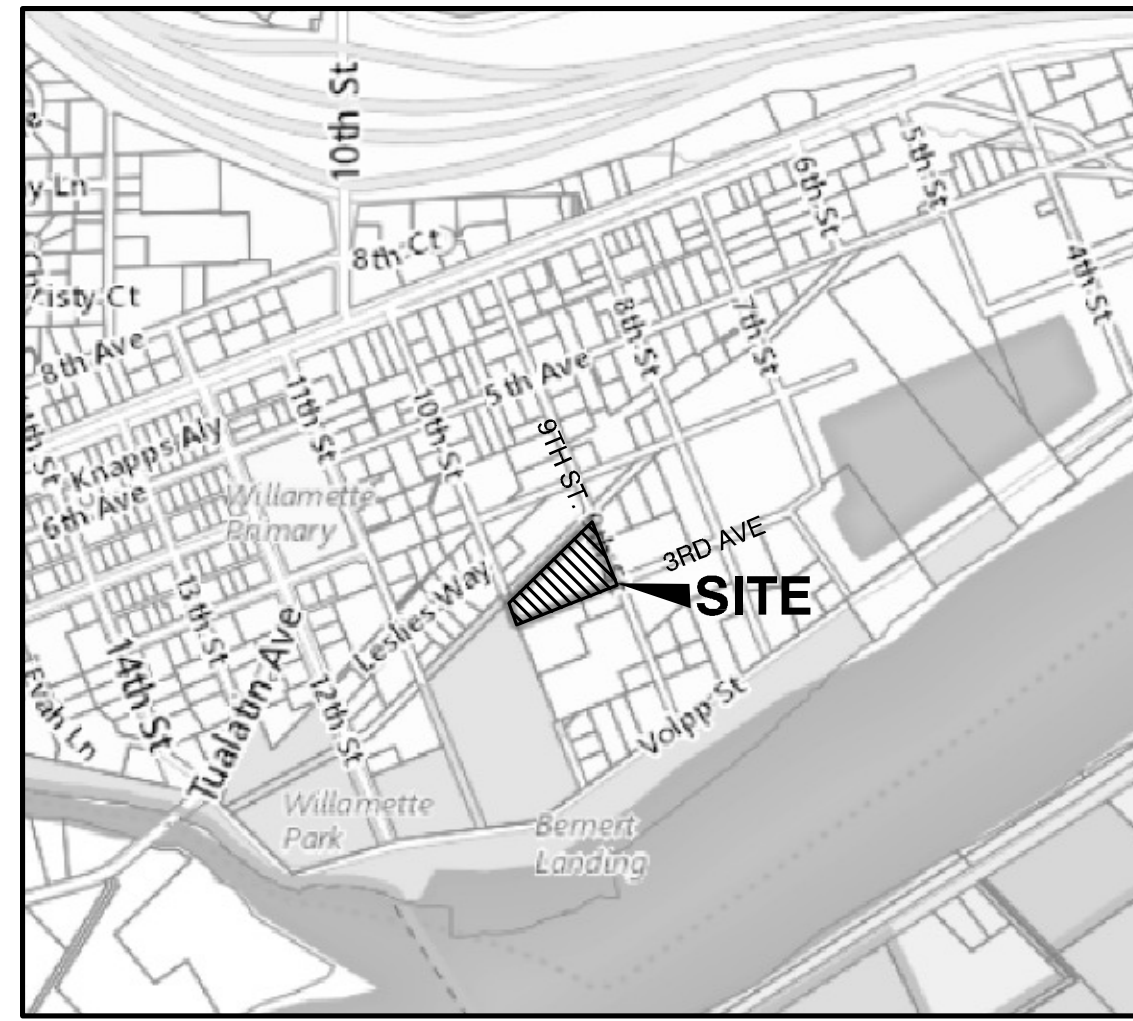
**Theta, llc**  
 ENGINEERING - SURVEYING - PLANNING  
 PO Box 1345  
 Lake Oswego, Oregon 97035  
 503/481-8822  
 email: thetaeng@comcast.net

Icon Construction & Development, LLC  
 1969 Willamette Falls Dr # 260  
 West Linn, OR 97068  
 PH: (503) 657-0406

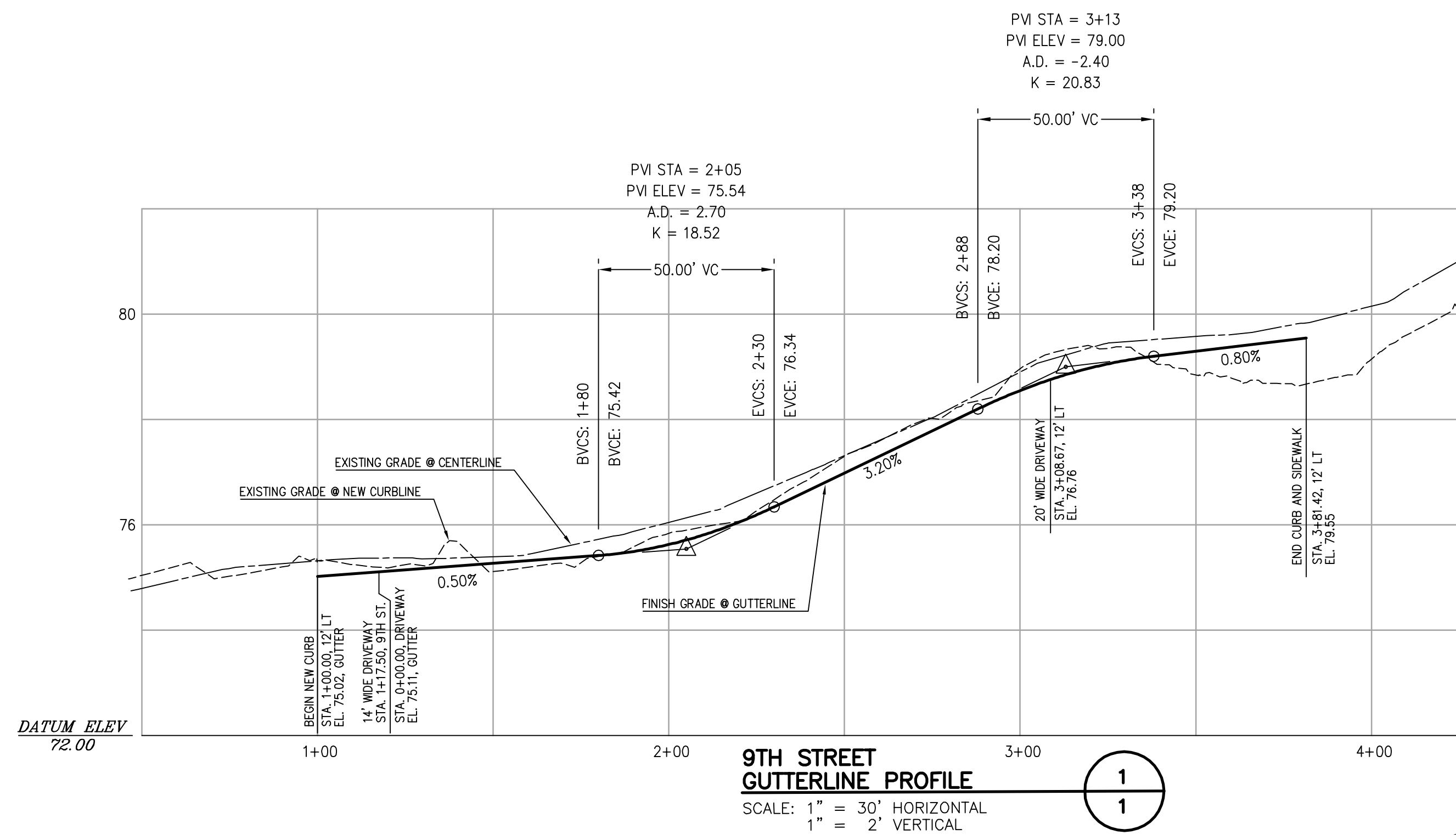
1220 9th Street - Partition of Lot D  
 West Linn, Oregon

SHEET:  
 2/2

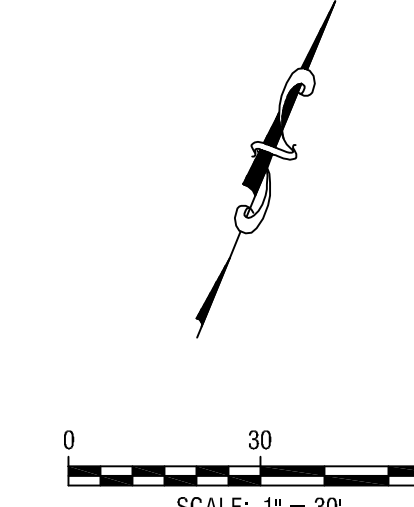
**GRADING AND EROSION CONTROL PLAN**



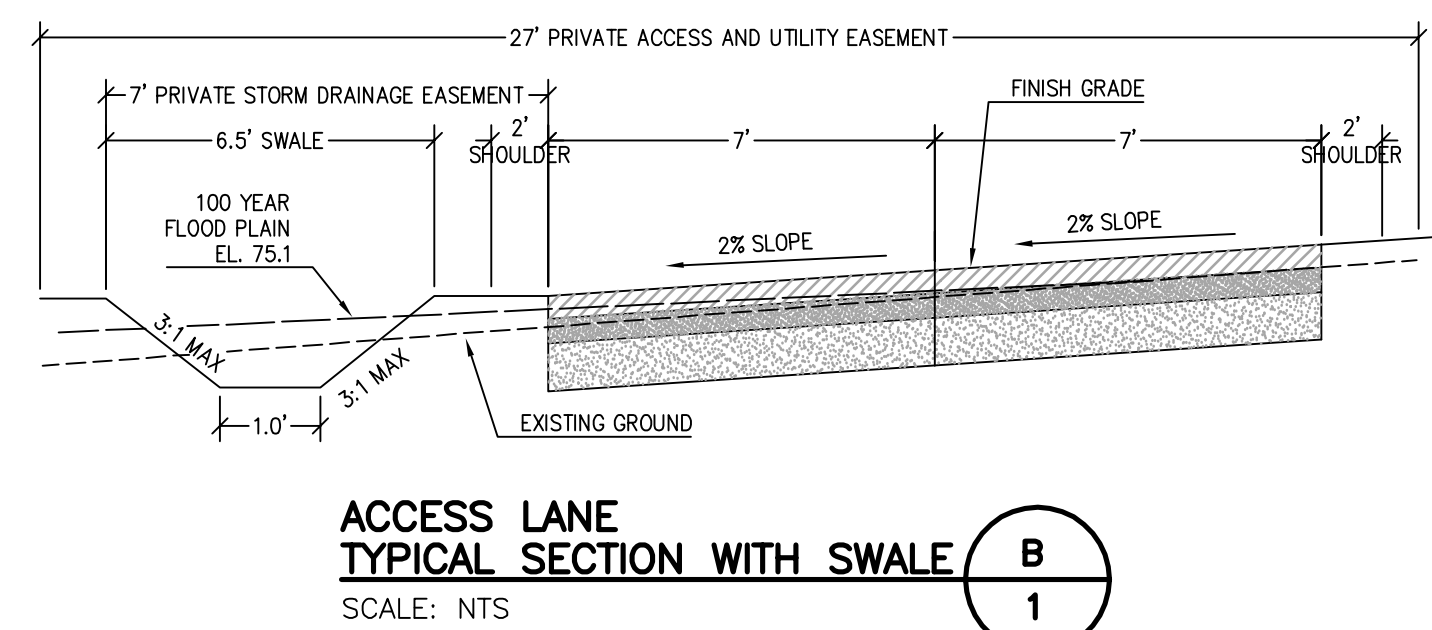
VICINITY MAP  
SCALE: NTS



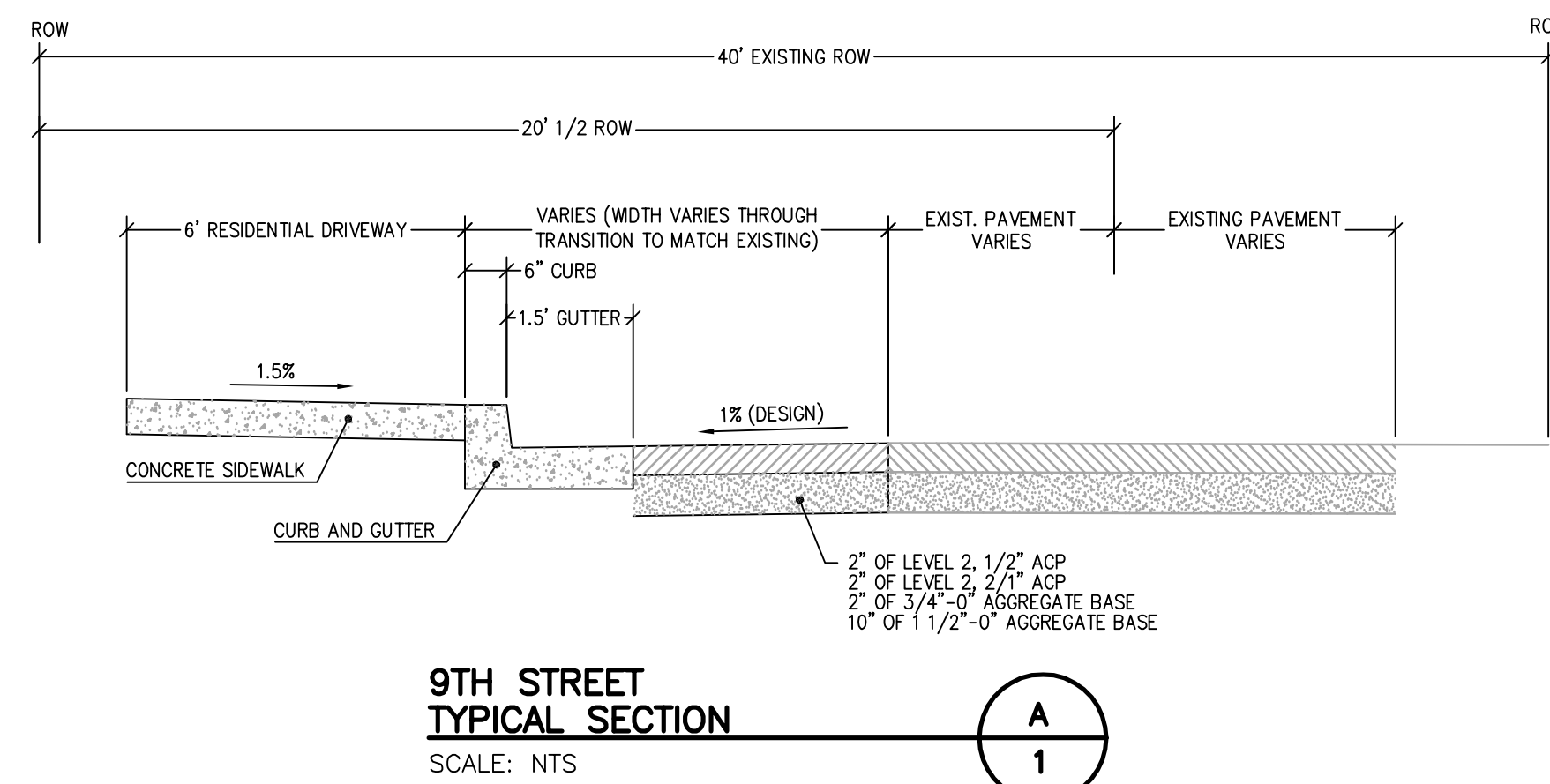
9TH STREET  
GUTTERLINE PROFILE  
SCALE: 1" = 30' HORIZONTAL  
1" = 2' VERTICAL



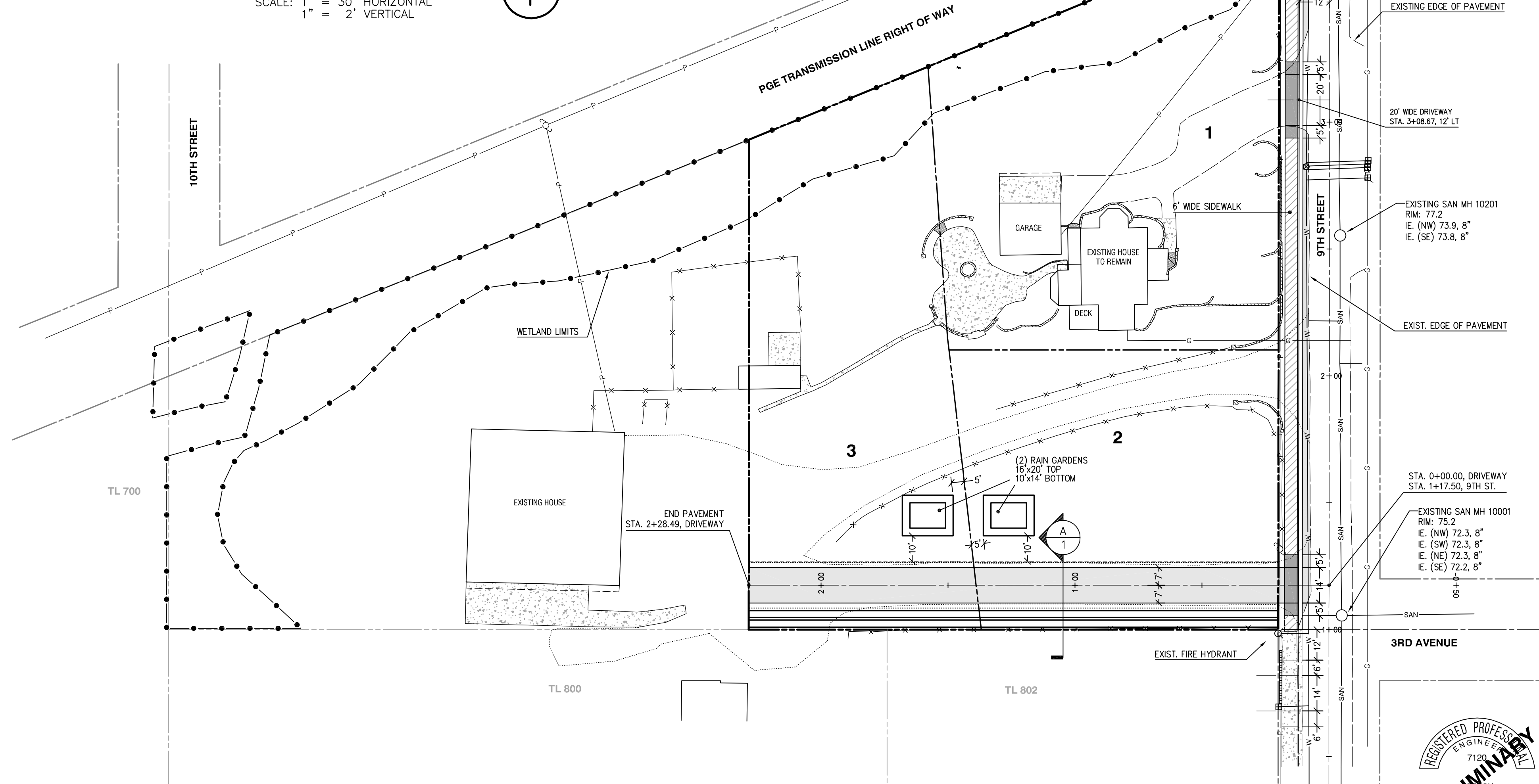
EXISTING SAN MH 10495  
RIM: 90.8  
IE. (NE) 82.4, 8"  
IE. (SW) 82.3, 8"  
IE. (NW) 82.3, 8"  
IE. (SE) 82.2, 8"



ACCESS LANE  
TYPICAL SECTION WITH SWALE  
SCALE: NTS



9TH STREET  
TYPICAL SECTION  
SCALE: NTS



EXISTING SAN MH 10201  
RIM: 77.2  
IE. (NW) 73.9, 8"  
IE. (SE) 73.8, 8"

EXISTING SAN MH 10001  
RIM: 75.2  
IE. (NW) 72.3, 8"  
IE. (SW) 72.3, 8"  
IE. (NE) 72.3, 8"  
IE. (SE) 72.2, 8"

STA. 0+00.00, DRIVEWAY  
STA. 1+17.50, 9TH ST.



EXPIRES: 06/30/2023  
SIGNATURE DATE: 03/29/2022

2022-129Z

DESIGNED: BDG			
DRAWN: BJS			
SCALE: 1" = 30'			
DATE: March, 2022			
FILE: Partition D Civil1	DATE	NO.	REVISION

**Theta, llc**  
ENGINEERING - SURVEYING - PLANNING  
PO Box 1345  
Lake Oswego, Oregon 97035  
503/481-8822  
email: thetaeng@comcast.net

Icon Construction & Development, LLC  
1969 Willamette Falls Dr # 260  
West Linn, OR 97068  
PH: (503) 657-0406

1220 9th Street - Partition of Lot D  
West Linn, Oregon

SHEET:  
1/2

PRELIMINARY STREET AND UTILITY PLAN