



**City of Bellevue  
Development Services Department  
Land Use Staff Report**

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**Proposal Name:** Long Short Plat

**Proposal Address:** 16809 SE 34<sup>th</sup> Street

**Proposal Description:** Application for Preliminary Short Plat approval to subdivide a 34,781 square foot (SF) lot (approx. 0.8 acre) into 4 single-family building lots located in the R-5 land use district.

**File Number:** 23-100107-LN

**Applicant:** Garwin Long

**Decisions Included:** Preliminary Short Plat (Process II)

**Planner:** Mark C. Brennan, Associate Planner

**State Environmental Policy**  
**Act Threshold**  
**Determination:** Exempt

**Department Decision:** Approval with Conditions

By: Elizabeth Stead  
Elizabeth Stead  
Land Use Director  
Development Services Department

**Application Date:** January 3, 2023  
**Notice of Application:** February 23, 2023  
**Minimum Comment Period:** March 9, 2023  
**Decision Publication Date:** September 28, 2023  
**Appeal Deadline:** October 12, 2023

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Information on how to appeal a proposal can be found by calling (425) 452-6864 or by visiting (<https://bellevuewa.gov/city-government/departments/development/zoning-and-land-use/public-notices-and-participation/participating-in-a-land-use-decision>). To file an appeal, please e-mail to: [cityclerk@bellevuewa.gov](mailto:cityclerk@bellevuewa.gov) and cc [hearingexaminer@bellevuewa.gov](mailto:hearingexaminer@bellevuewa.gov), or mail to Bellevue City Hall, Attn: City Clerk, P.O. Box 90012, Bellevue, WA. 98009-9012. Any appeal of the Decision must be received by the City Clerk's Office no later than 5 PM on the date of the appeal deadline noted in the decision

## TABLE OF CONTENTS

I.	<b>DESCRIPTION OF PROPOSAL</b>	Pg. 3
II.	<b>SITE DESCRIPTION AND ZONING</b>	Pg. 4
III.	<b>CONSISTENCY WITH ZONING AND LAND USE CODE REQUIREMENTS</b>	Pg. 5
IV.	<b>STATE ENVIRONMENTAL POLICY ACT (SEPA)</b>	Pg. 7
V.	<b>PUBLIC COMMENT</b>	Pg. 7
VI.	<b>SUMMARY OF TECHNICAL REVIEWS</b>	Pg. 8
VII.	<b>DECISION CRITERIA</b>	Pg. 12
VIII.	<b>CONCLUSION AND DECISION</b>	Pg. 15
IX.	<b>CONDITIONS OF APPROVAL</b>	Pg. 15

### Attachments:

Boundary & Topographic Survey - enclosed  
Preliminary Short Plat Map - enclosed  
Arborist's Report - enclosed  
Preliminary Clearing and Grading Plan - in project file  
Preliminary Civil Plans - in project file

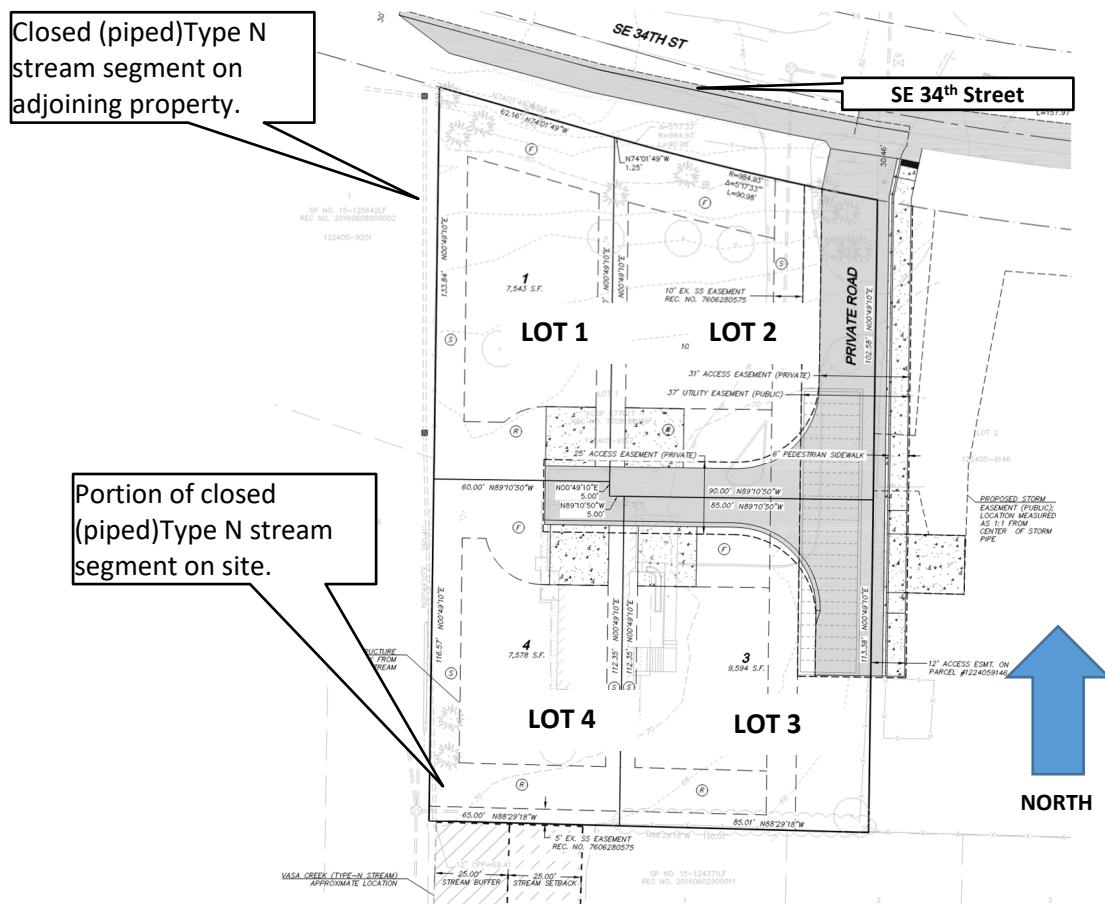
**I. DESCRIPTION OF PROPOSAL:**

**A. Description:**

The applicant is proposing a preliminary short plat to subdivide an existing 34,781 SF lot (approx. 0.8 acre) parcel (site) into four (4) new single-family lots as follows and as depicted on Figure 1 below:

- **Lot 1:** 7,543 SF
- **Lot 2:** 10,067 SF
- **Lot 3:** 9,594 SF
- **Lot 4:** 7,578 SF

**Figure 1: Long Preliminary Short Plat Map**



The site contains an existing single-family dwelling which will be demolished as a result of this short plat proposal. Access to the four new lots will be provided via one shared private road from SE 34<sup>th</sup> Street. The subject site is located in the R-5 land use district and is within the Newcastle Subarea. The site contains 32 existing significant trees with a combined total of 502 diameter inches. A minimum of 30% (150.6) of existing diameter inches must be retained. The applicant proposes to retain 5 trees with a combined total of 158 diameter inches, or 31% of the existing significant trees on the site.

The site also includes a portion of a closed (piped) Type-N stream segment. The closed stream generally runs from north to south on the parcel to the immediate west of the subject site, but

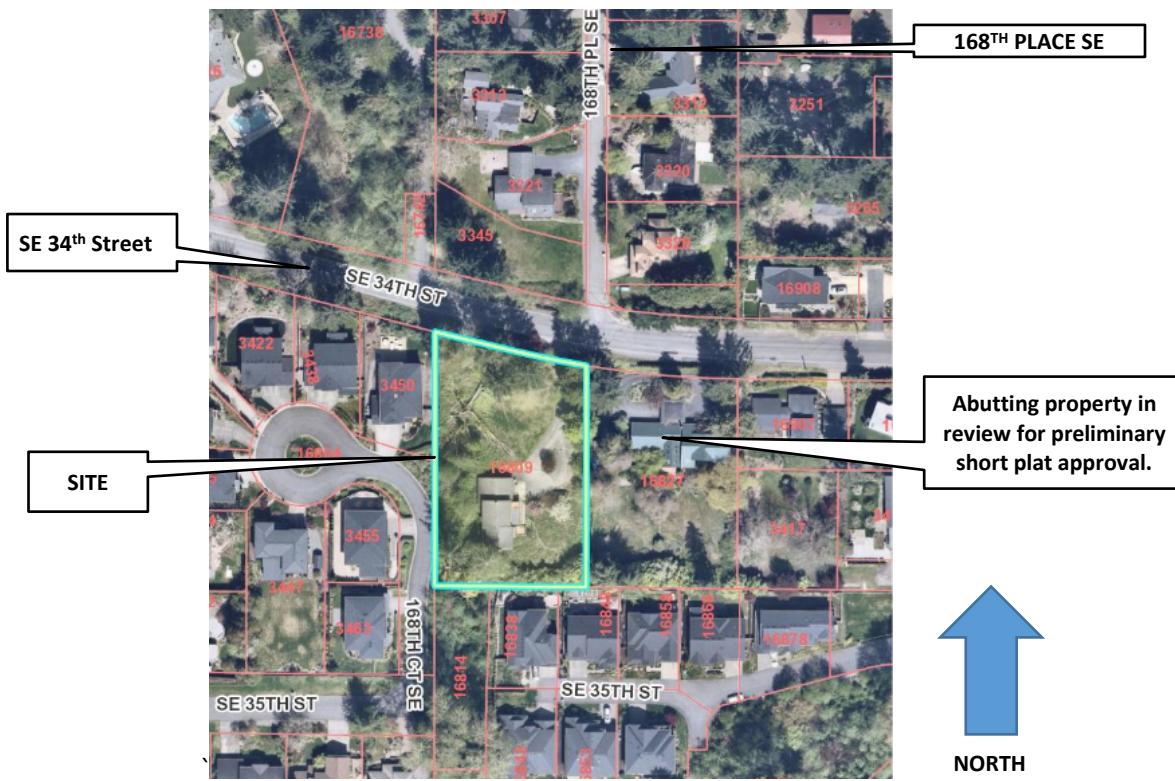
enters the site at its southwest corner on proposed Lot 4. Per LUC 20.25H.035, closed stream segments on undeveloped sites do not require a buffer but have a 10' structure setback from the edge of the piped section of the stream. The 10-foot structure setback from the stream pipe shall be depicted on the face of the final short plat. Refer to Conditions of Approval regarding Tree Removal within Critical Area Structure Setback in Section IX.B, and Tree Retention and Critical Area Structure Setback from Closed Type-N Stream Segment in Section IX.C of this report.

## II. SITE DESCRIPTION AND ZONING:

### A. Site Description:

The site is located in an existing single-family neighborhood. Single-family residences abut the site to the west, south and east. The subject property is currently developed with one single-family lot accessed via a shared driveway curb cut from SE 34<sup>th</sup> Street to the north. The driveway is shared with the adjoining single-family lot to the east, which is also in review for a proposed two (2) lot preliminary short plat.

**Figure 2: Site Context**

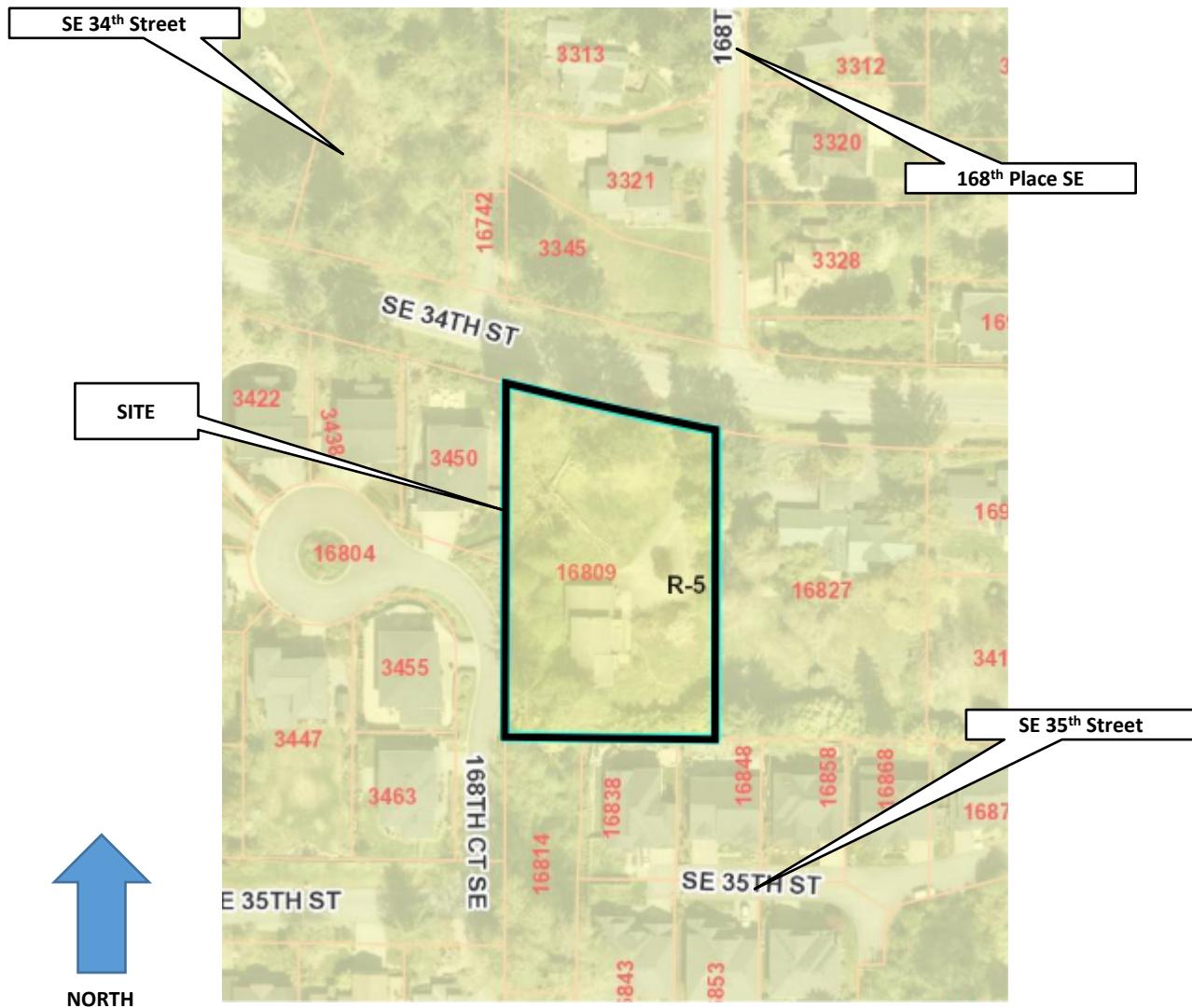


The site's topography slopes downhill from north to south, with its highest elevation of approximately 84 ft at the northwest corner along SE 34<sup>th</sup> Street to an elevation of approximately 65 ft at the southeast corner, roughly 290 ft. away, resulting in a 7% slope. As described above, a portion of a closed (piped) Type N stream generally located on the parcel to the immediate west of the site intrudes onto the site at the southwest corner of proposed Lot 4. Refer to Condition of Approval regarding Critical Area Structure Setback from Closed Type-N Stream Segment in Section IX.C of this report.

**B. Zoning:**

The four lots proposed with this short plat application are permitted within the R-5 land use district. Refer to the table in Section III.B below for the proposal's conformance to dimensional requirements.

**Figure 3: Site Zoning Map**



**III. CONSISTENCY WITH ZONING AND LAND USE CODE REQUIREMENTS**

**A. Consistency with Land Use Code Dimensional Requirements (LUC 20.20.010)**

Future single-family structures on the proposed lots will be reviewed for full compliance with the dimensional standards in LUC 20.20.010 at the time of building permit applications.

<b>BASIC INFORMATION</b>		
<b>Zoning District</b>	R-5 Comprehensive Plan Designation: Single-Family – High Residential (SF-H)	
<b>Gross Site Area</b>	34,781 SF - approx. 0.8 acres	
<b>ITEM</b>	<b>REQ'D/ALLOWED</b>	<b>PROPOSED</b>
<b>Minimum Lot Area</b>	7,200 SF  LUC 20.20.010	Meets LUC requirement. <b>Lot 1:</b> 7,543 SF <b>Lot 2:</b> 10,067 SF <b>Lot 3:</b> 9,594 SF <b>Lot 4:</b> 7,578 SF
<b>Minimum Lot Width</b>	60 Feet  LUC 20.20.010 & .015	Meets LUC requirement. <b>Lot 1:</b> 60 ft. <b>Lot 2:</b> 90 ft. <b>Lot 3:</b> 85 ft. <b>Lot 4:</b> 65 ft.
<b>Minimum Lot Depth</b>	80 Feet  LUC 20.20.010 & .015	Meets LUC requirement. <b>Lot 1:</b> 118 ft. <b>Lot 2:</b> 103 ft. <b>Lot 3:</b> 112 ft. <b>Lot 4:</b> 112 ft.
<b>Building Setbacks</b>  Front Yard (F) Rear Yard (R) Min. Side Yard (S) 2 Side Yards (S)	Front Yard: 20 Feet Rear Yard: 20 Feet Min. Side Yard: 5 Feet 2 Side Yards Together: 15 Feet  LUC 20.20.010	Meets LUC requirement. <b>Lot 1:</b> (F)20 ft, (R)20 ft., (S)5 ft./10 ft.(*): 15 ft. <b>Lot 2:</b> (F)20 ft, (R)20 ft., (S)5 ft./16 ft.: 21 ft. <b>Lot 3:</b> (F)20 ft, (R)20 ft., (S)5 ft./16 ft.: 21 ft. <b>Lot 4:</b> (F)20 ft, (R)20 ft., (S)5 ft./10 ft (*): 15 ft.
<b>Private Road Setback</b>	Setback is 10 feet from any private road unless a greater dimension is specified.  LUC 20.20.010 Note (17)	Meets LUC requirement. Lot 2: Lot 3:  <b>(*)Refer to Condition of Approval regarding Critical Area Structure Setback from Closed Type-N Stream Segment in Section IX.C of this report.</b>

**B. Tree Retention (LUC 20.20.900)**

The retention of at least 30% of the existing diameter inches of significant trees on site is required. In order to meet this 30% minimum retention requirement, the project must retain a minimum of 150.6 (151) diameter inches of the total 502 diameter inches of existing significant trees on site. The applicant proposes to retain a total of 158 diameter inches, or 31% of the

diameter inches of all significant trees on site. As conditioned, this will meet the minimum tree retention requirement.

All retained trees shall be protected from adverse impacts during construction including, but not limited to, the provision of tree protection fencing. No excavation or clearing should be performed within the drip lines of retained trees except as specifically approved on the construction permit plans and is required, this work shall be done by hand.

The final short plat shall include a Tree Preservation plan that portrays the drip-line, the diameter size, and common name of each significant tree to be retained, along with a tree preservation note. [Refer to Conditions of Approval regarding Tree Removal within Critical Area Structure Setback and Tree Protection in Section IX.B and Tree Retention in Section IX.C of this report.](#)

**IV. STATE ENVIRONMENTAL POLICY ACT (SEPA):**

The project is exempt from SEPA review as it does not exceed the exempt levels for new construction stated in WAC 197-11-800 or as amended by the City of Bellevue Environmental Procedures Code BCC 22.02.

**V. PUBLIC COMMENT:**

The City initially notified the public of this proposal on February 23, 2023 with mailed notice and publication in the Weekly Permit Bulletin. A public information sign was installed on the site the same day. As of this writing three members of the public have submitted comments regarding this proposal and have each been designated as a Party of Record.

A summary of the concerns expressed by members of the public, along with the City's findings, are provided below:

***Tree Removal:***

***The existing trees along the fence-line (west property boundaries of proposed Lots 1 & 4) provide a critical privacy screen with adjacent existing single-family homes. The density of the proposed subdivision creates (a) risk that tree removal will result in a loss of privacy between neighbors. Additionally, the removal of trees as described above will introduce environmental risk to the existing small creek that runs along this area.***

***Finding:*** Properties located in the R-5 land use district are not required to retain trees along their perimeters, per LUC 20.20.900.D and the associated table in 20.20.520.F1. The proposed preliminary short plat will meet the 30% minimum tree retention percentage for approval. Refer to Section III.B of this report for more information. Potential damage to the existing piped stream adjacent to the proposal due to the removal of on-site trees will be minimized by adherence to tree removal standards. Additionally, if any trees on site are determined to be hazard trees, the applicant will be required to plant new trees as mitigation for their removal. Refer to the Arborist's Report, attached. [Refer to Conditions of Approval regarding Tree Removal within the Critical Area Structure Setback and Tree Protection in Section IX.B, and Tree Retention in Section IX.C of this report.](#)

**Stormwater Drainage**

***The culvert that runs down to the creek from 35<sup>th</sup> street is on my property. The Brangwin property drains into it. The water from this property's drainage system runs under my house (located at 16727 SE 35<sup>th</sup> Street).***

***Concern that the impact of future construction on the new short plat will impact drainage on properties located within the Salishan HOA, the 8 properties located at 16838 – 16884 SE 35<sup>th</sup> Street.***

**Finding:** An essential part of Utility's review of a proposed short plat is to analyze how the project aims to address the impacts that the proposed development will have on stormwater drainage. This project completed a downstream analysis which illustrates where the discharge will go. This short plat proposes to construct a conveyance system that will flow to the east of the parcel and will discharge into the existing storm inlet located at the intersection of SE 34<sup>th</sup> Street and West Lake Sammamish Parkway SE, which means the stormwater will be directed in the opposite direction of the properties in question that are the concern of the comment. The applicant provided sufficient calculations and modelling to show that the existing conveyance system contains sufficient capacity and that their proposal complies with City of Bellevue and Department of Ecology standards.

**VI. SUMMARY OF TECHNICAL REVIEWS:**

**A. Transportation Review**

The Transportation Department has reviewed the plans submitted for the preliminary short plat and recommends approval. The final engineering plans must show all transportation-related improvements and must be consistent with the Transportation Development Code (BCC 14.60) and the Transportation Department Design Manual prior to approval of the plat infrastructure permit.

Prior to final short plat approval, the developer must complete all transportation improvements at the developer's expense (BCC 14.60.110); or provided that all the requirements of BCC 14.60.260 are met, the director may accept an acceptable financial assurance device equivalent to 150% of the cost of the unfinished improvements. Installation of improvements that would negatively affect safety if left unfinished may not be delayed through use of a financial assurance device.

Under BCC 22.16, payment of the transportation impact fee for each new home prior to building permit issuance will adequately mitigate off-site transportation impacts. The fee amount is subject to periodic revision by the City Council. Builders will pay the fee in effect at the time of building permit issuance. Refer to Condition of Approval regarding Engineering Plans in Section IX.B of this report.

**Site Access**

The proposed project consisted of an existing parcel with a single-family home dividing into four (4) single family lots. The proposed short plat is located on the south side of the intersection of 168<sup>th</sup> Place SE and SE 34th Street. 168<sup>th</sup> Place SE is a private local street and SE 34<sup>th</sup> Street is a two-lane collector arterial street. The property is bordered by single family residences. Currently, access to SE 34th Street is provided by an existing joint use paved driveway located

on the subject property. This joint use driveway also provides access to this property as well as the property to the east.

It is proposed that the existing residence on this parcel will be demolished and removed for the new four (4) single family lots. The existing paved driveway will be removed and replaced with a new private road located on the south side of the intersection of SE 34<sup>th</sup> Street and 168<sup>th</sup> Place SE. The new private road will provide access to SE 34<sup>th</sup> Street for the proposed 4 new single-family lots on this property as well as access to the property to the east. A hammerhead will be installed which provides a vehicle turnaround facility with Fire Department's Approval and must be built per the City's Transportation Department Manual and Standard Drawing. No other access connection to the city right-of-way is authorized.

As part of this development, a joint use driveway entrance with an easement will be installed at the southern portion of the new private road to allow access to and from the adjacent east property.

There is currently no sidewalk or curb and gutter along the south side of SE 34<sup>th</sup> Street in front of the property. Along the north side of SE 34<sup>th</sup> Street, east of 168<sup>th</sup> Place SE, there are existing curb and gutter and a sidewalk system that connects to West Sammamish Parkway SE. West of 168<sup>th</sup> Place SE, there are no sidewalks or curb and gutter along the north side of SE 34<sup>th</sup> Street. Pedestrian and bicycle access will be provided by improving the shoulder on the south side of SE 34<sup>th</sup> Street along the project frontage and providing a 6-foot sidewalk on the east side of the private access road. Street names and site addresses will be determined by the City's Parcel and Address Coordinator. Refer to Condition of Approval regarding Infrastructure Improvements and Access Design and Maintenance in Section IX.C of this report.

### **Transportation Improvements**

This project will provide a shoulder improvement to SE 34<sup>th</sup> Street; and widening and adding a new sidewalk to the existing joint access driveway to provide access to the four proposed lots. Project Transportation improvements and private road requirements shall include:

- Provide an 8-foot-wide asphalt shoulder for bike and pedestrian use along the south side of SE 34<sup>th</sup> Street for the length of the frontage.
- Install a new driveway private roadway entrance at the south side of the intersection of SE 34<sup>th</sup> Street and 168<sup>th</sup> Place SE.
- The private road entrance from SE 34th Street shall be limited to a maximum grade of 10% for the first 20 feet past the back of the intersection approach and a maximum grade of 15% thereafter.
- The private roadway will be paved with a minimum width of twenty (20) feet and have an access easement of twenty-five (25) feet.
- The private road connecting to SE 34<sup>th</sup> Street shall have a sidewalk with a minimum width of six (6) feet on one side of the roadway.
- Handrail installation, where warranted, will be required for fall protection along the east side of the sidewalk along the east side of the private road.
- Install an ADA ramp at the north end of the new sidewalk that will provide accessibility to the north sidewalk on SE 34<sup>th</sup> Street.
- On each single-family lot, construct a driveway with a minimum width of 10 feet and a

minimum length of 20 feet.

- Install a minimum 16 ft wide concrete joint use driveway entrance to the east property with a minimum 20 ft access easement.
- Sight distance requirements must be met per BCC 14.60.240 at the private roadway entrance to SE 34<sup>th</sup> Street and at the joint use driveway entrance for the adjacent east property.
- Vegetation within the sight distance triangles must be trimmed to a height of 7.5 feet above the ground. Further, ground vegetation within the sight triangle must be trimmed to no more than 2.5 feet above a line drawn from pavement level to pavement level.
- All overhead utilities into the plat must be undergrounded.
- Street Lighting meeting City of Bellevue's standard per BCC 1.60.210 is required at the entrance from and along SE 34<sup>th</sup> Street. SE 34<sup>th</sup> Street is classified as a 'Tertiary' level for streetlights. An AGI analysis will be required to verify that minimum light levels are met.

Prior to final short plat approval, the developer must provide all required improvements at the developer's expense (BCC 14.60.110). The final engineering plans showing those improvements must be consistent with the Transportation Development Code (BCC 14.60) and the Transportation Department Design Manual prior to approval of the plat infrastructure (GE) permit.

### **Use of the Right of Way**

Applicants often request use of the right of way and of pedestrian easements for materials storage, construction trailers, hauling routes, fencing, barricades, loading and unloading, and other temporary uses as well as for construction of utilities and street improvements. A Right of Way Use Permit for such activities must be acquired prior to issuance of any construction permit including demolition permit. [Refer to Conditions of Approval regarding Right-of-Way Use Permit and Off-Street Parking in Section IX.B of this report.](#)

### **Pavement Restoration**

The City of Bellevue has established the Trench Restoration Program to provide developers with guidance as to the extent of resurfacing required when a street has been damaged by trenching or other activities. Under the Trench Restoration Program, every public street in the City of Bellevue has been examined and placed in one of three categories based on the street's condition and the period of time since it was last resurfaced. These three categories are No Street Cuts Permitted, Overlay Required, and Standard Trench Restoration. Each category has different trench restoration requirements associated with it.

For this development, SE 34<sup>th</sup> Street is classified as Standard Trench Restoration requirement sections. Any excavations and trench construction restoration with these streets shall conform with City of Bellevue Standard Plan RC-190-1. [Refer to Condition of Approval regarding Pavement Restoration in Section IX.B of this report.](#)

### **Sight Distance**

The access design shall meet the sight distance requirements of BCC 14.60.240. Vegetation shall be trimmed as needed within the sight triangle. [Refer to Condition of Approval regarding Sight Distance in Section IX.B of this report.](#)

### **Transportation Impacts and Mitigation**

City staff has analyzed the potential short-term operational impacts of this proposal in order to recommend mitigation if necessary. These impacts included traffic operations conditions during the a.m. and p.m. peak hours. Due to the minimal amount of new p.m. peak hour trips generated by the Long short plat, traffic impacts from the development will be minor in nature. Therefore, no additional *mitigation* is required other than payment of the transportation impact fee and the project site improvements.

### **B. Clear and Grade Review**

A Clearing and Grading Permit is required for the infrastructure development per BCC 23.76.035. The permit application must be in accordance with the Clearing and Grading Code, as outlined in the submittal requirements and the Clearing and Grading Development Standards, which is available on the City of Bellevue website at: <https://development.bellevuewa.gov/codes-and-guidelines/clearing-grading-codes-and-guidelines/>

**Refer to Conditions of Approval regarding Construction Stormwater Pollution Prevention Plan, Erosion and Sedimentation Control – Minimum Requirements 2, Tree Protection, Clearing and Grading Limits, Construction Sequence, Rainy Season Restrictions, Turbidity Monitoring Plan, Rockery Requirements, Post-Construction Soils, Abatement Security and Ecology's Notice of Intent in Section IX.B of this report.**

### **C. Utilities Review**

The Short Plat development proposed for this application has been reviewed on a conceptual basis and can feasibly construct water, sewer and storm facilities under current Utility codes and standards without requesting modifications or deviations from them. Major changes to the design may cause delay in approval of future utility construction permits.

#### Surface Water

This site, located in the Vasa Creek Drainage Basin, proposes to construct four new lots. After conducting two Pilot Infiltration Tests, the 2018 Geotech report that was compiled for this project concluded an infiltration rate of 0.25 in/hr for the site, which is less than the City of Bellevue minimum infiltration rate of 0.30 in/hr. For this reason, infiltration was deemed infeasible for this project.

Each of the four lots will use perforated stub-out connections to effectively manage the roof stormwater. To meet flow control requirements, the project will install an on-site stormwater detention vault that will release the stormwater at a defined rate. The project proposes to convey the stormwater by means of private conveyance from the stormwater detention vault to an existing stormwater outlet located on SE 34<sup>th</sup> Street. A portion of the proposed conveyance pipe will utilize land that belongs to the parcel 16827 SE 34<sup>th</sup> Street, therefore a new stormwater easement centered on the stormwater conveyance pipe will be created so that the pipe can be constructed as proposed. A downstream analysis on the existing stormwater outlet concluded that the outlet contains sufficient capacity to receive the additional stormwater that it will intake resulting from the increased impervious surface created by this development.

Washington State Department of Ecology Minimum Requirements 1-9 will apply to the site. Instead of allowing runoff to sheet flow into the neighboring property, the project proposes to

alter the natural discharge location by use of conveyance. The proposed downstream path will converge with the predeveloped downstream path within ¼ mile. Please note the following:

- Minimum Requirement #5: This project will apply OSM BMPs from List #2.
- Minimum Requirement #6: Enhanced Treatment will be required for this project. The project proposes to meet this requirement by using StormFilter media filtration systems.
- Minimum Requirement #7: The proposed method of flow control is an on-site detention vault that will be conveyed to an existing stormwater outlet located on SE 34<sup>th</sup> St.

#### Water

Each of the four lots will have an individual domestic water connection. Meters serving these lots will be placed fronting SE 34<sup>th</sup> Street. There is an existing 6" AC main located on SE 34<sup>th</sup> Street.

#### Sewer

Sanitary Sewer for the site is available via the existing 8" AC sewer main located on-site. Each of the four lots will connect to this main by means of individual side sewer connections. There is sufficient capacity available in the sewer for these connections.

#### Refer to Condition of Approval regarding Utilities Conceptual Approval in Section IX.A of this report.

#### **D. Fire Department Fire Prevention Division Review**

The Bellevue Fire Department, Fire Prevention Division has reviewed permit application 23-100107 LN in accordance with the 2018 International Fire Code (IFC) as amended by the State of Washington and the City of Bellevue, applicable referenced standards, City of Bellevue development requirements, and best fire protection practices. The Bellevue Fire Department acknowledges the project generally conforms to the Code requirements for site circulation and access and can approve the Preliminary Short Plat application with the following conditions:

#### Refer to Conditions of Approval regarding Fire Apparatus Access Roads in Section IX.A of this report.

### **VII. DECISION CRITERIA:**

Land Use Code 20.45B.130.A Decision Criteria for a Preliminary Short Plat: *The Director may approve or approve with modifications an application for a Preliminary Short Plat if:*

1. *The Preliminary Short Plat makes appropriate provisions for, but not limited to, the public health, safety and general welfare, for open spaces, drainage ways, streets, sidewalks, alleys, other public ways, water supplies, sanitary waste.*

**Finding:** City codes ensure public health, safety and general welfare through development code requirements. Existing public water and sewer facilities have been deemed adequate to serve the proposed development. The existing single-family home will be demolished. Only one curb cut will be allowed from SE 34<sup>th</sup> Street. Stormwater resulting from future development will meet Utilities Department standards. Refer to Conditions of Approval regarding Utilities Conceptual Approval in Section IX.A, and Infrastructure Improvements, Access Design and Maintenance and Demolition of Existing Structures in Section IX.C of this report.

**2. The public interest is served by the short subdivision.**

**Finding:** The public interest is served by providing additional housing opportunities in accordance with the Comprehensive Plan, while ensuring compliance with City codes and standards.

**3. The preliminary short plat appropriately considers the physical characteristics of the proposed short subdivision site.**

**Finding:** The preliminary short plat considers the physical characteristics of the site by establishing tree retention and protection requirements which will maintain some of the vegetated character of the surrounding neighborhood, consistent with the surrounding neighborhood. Five trees, or 31% of the existing diameter inches of existing trees will be retained. As described previously in this report, the site contains a portion of a piped Type-N stream and its associated structure setback. [Refer to Conditions of Approval regarding Tree Removal in the Critical Area Structure Setback and Tree Protection in Section IX.B and Tree Retention in Section IX.C of this report.](#)

**4. The proposal complies with all applicable provisions of the Land Use Code (BCC Title 20), the Utility Code (BCC Title 24), and the City of Bellevue Development Standards.**

**Finding:** As conditioned, the proposal will comply with all applicable Codes and City of Bellevue development standards. As defined by Land Use Code 20.25H, the site contains a small area of stream critical area in the form of a closed Type-N stream conveyed in a pipe across the site, as well as a 10' structure setback from the pipe.

However, as portrayed on the short plat plan, neither the on-site segment of the closed stream itself, or any area within the 10' structure setback extending onto the site (Lots 1 and 4) will impact the potential development of new single-family dwellings on Lots 1 and 4, as the plat map indicates a 10' side yard setback for each proposed lot as depicted in **Figure 1** above. The [Refer to Condition of Approval regarding Critical Area Structure Setback from Closed Type-N Stream Segment in Section IX.C of this report.](#)

**Land Use Code Requirements**

**a. Dimensional Requirements:** *Refer to Section III.A of this report for how this proposal has met the R-5 dimensional requirements.*

**Response:** All of the proposed lots shown can be developed in accordance with the City of Bellevue Land Use Code requirements, including the R-5 land use district dimensional requirements.

**b. Significant Tree Retention:** *Refer to Section III.B of this report for how this proposal has met tree preservation requirements pursuant to LUC 20.20.900.D.*

**Response:** The applicant proposes to retain 31% of the significant trees on-site. This will satisfy the minimum 30% tree retention requirement. [Refer to Conditions of Approval regarding Tree Removal in the Critical Area Structure Setback and Tree Protection in Section IX.B and Tree Retention in Section IX.C of this report.](#)

c. **Noise/Construction Hours:**

**Response:** All construction associated with this short plat will be required to adhere to the noise levels and construction hours as regulated by BCC 9.18. [Refer to Condition of Approval regarding Noise – Construction Hours in Sections IX.A of this report.](#)

5. ***The proposal is in accord with the Comprehensive Plan (BCC Title 21).***

**Finding:** The site is located within the Newcastle Subarea. The Comprehensive Plan specifies Single-Family High-Density development for this property, which is consistent with the R-5 land use designation. The proposal achieves the density that is planned and anticipated on this site, complying with applicable Comprehensive Plan policies for this subarea and City-wide policies, including the following:

a. **City-wide policies:**

i. **Policy LU-5:** *Accommodate adopted growth targets of 17,000 additional housing units and 53,000 additional jobs for the 2006-2031 period and plan for the additional growth anticipated by 2035.*

**Response:** The proposed short plat will provide lots for four future single-family residential units. These homes will help to meet housing for Bellevue's share of the regionally adopted demand forecasts for residential uses.

ii. **Policy LU-6:** *Encourage new residential development to achieve a substantial portion of the maximum density allowed on the net buildable acreage.*

**Response:** The four lots proposed in this short plat are the maximum number of lots allowed on an R-5 property of this size.

b. **Newcastle Subarea policies:**

i. **Policy S-NC-11:** *Promote infill development at a density consistent with the existing character of established neighborhoods.*

**Response:** The four lots proposed in this short plat represent an infill development with a density consistent with the existing character of the neighborhood. The lot abuts two previously approved preliminary short plats to its west and south.

6. **Each lot in the proposal can reasonably be developed in conformance with current Land Use Code requirements without requiring a variance.**

**Finding:** As conditioned, each lot in the proposal can be developed to current R-5 dimensional standards without requiring a variance. Refer to Section III of this report. There are no site constraints or critical areas which inhibit the development of this property that would warrant a variance. [Refer to Condition of Approval regarding Variance Restriction in Section IX.A of this report.](#)

7. **All necessary utilities, streets or access, drainage and improvements are planned to accommodate the potential use of the entire property.**

**Finding:** The Utilities and Transportation Departments have reviewed the preliminary short plat and determined that all necessary utilities, drainage, driveway access location, and other required improvements are either existing, planned or conditioned as part of this approval, to accommodate the use of these lots. [Refer to Conditions of Approval regarding Utilities Conceptual Approval, Engineering Plans, Infrastructure Improvements, Access Design and](#)

**Maintenance and Pavement Restoration in Section IX.C of this report.**

**VIII. CONCLUSION AND DECISION:**

After conducting the various administrative reviews associated with this proposal, including applicable Land Use consistency, City Code, and standard compliance reviews, the Director of the Development Services Department does hereby **APPROVE WITH CONDITIONS** this Preliminary Short Plat application.

**TIME LIMITATION: This approval automatically expires and is void if the applicant fails to file for approval of the final short plat WITHIN ONE YEAR of the effective date of the approval unless the applicant has requested in writing and has received an extension for the Preliminary Short Plat pursuant to Land Use Code Section 20.45B.160.**

**IX. CONDITIONS OF APPROVAL:**

The following Conditions are imposed under the authority referenced:

**COMPLIANCE WITH BELLEVUE CITY CODES AND ORDINANCES**

The applicant shall comply with all applicable Bellevue City Codes, Standards, and Ordinances including but not limited to:

<b>Applicable Codes, Standards &amp; Ordinances</b>	<b>Contact</b>
Clearing & Grading Code – BCC 23.76	Savina Uzunow, (425) 452-7860
Construction Codes – BCC Title 23	Building Division, (425) 452-6864
Fire Code – BCC 23.11	Anna Mickols, (425) 452-2925
Land Use Code – BCC Title 20	Mark C. Brennan, (425) 452-2973
Noise Control – BCC 9.18	Mark C. Brennan, (425) 452-2973
Transportation Develop. Code – BCC 14.60	William Bou, PE (425) 452-7910
Right-of-Way Use Code 14.30	William Bou, PE (425) 452-7910
Utility Code – BCC Title 24	Roy Andresen, (425) 452-5206

**A. GENERAL CONDITIONS:**

**1. VARIANCE RESTRICTION**

Approval by the City of this short plat is a determination that each lot in the short plat can be reasonably developed in conformance with the Land Use Code requirements in effect at the time of preliminary short plat approval without requiring a variance.

AUTHORITY: Land Use Code 20.45B.130.A.6  
REVIEWER: Mark C. Brennan, Land Use

**2. NOISE – CONSTRUCTION HOURS**

The proposal will be subject to normal construction hours of 7 a.m. to 6 p.m., Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Proximity to existing residential uses will be given special consideration. Upon written request to DSD, work hours may be extended to 10:00 p.m. if the criteria for extension of work hours as stated in BCC 9.18 can be met and the appropriate mitigation employed.

AUTHORITY: Bellevue City Code 9.18  
REVIEWER: Mark C. Brennan, Land Use

**3. FIRE APPARATUS ACCESS ROADS:**

Fire apparatus access roads and driveways shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8, and the City of Bellevue Transportation Department Design Standards and Manual. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities.

- a. The access road grade for the preliminary short plat exceeds 12% which requires an automatic fire sprinkler (NFPA 13D) system to be installed for the future dwellings on lots 1, 2, 3, & 4. (IFC 503.2.7).
- b. Detention vaults and pipes in the roadway shall be capable of supporting fire apparatus with a gross weight of 64,000 lbs. (rear axle=48,000 lbs and front axle=19,000 lbs) and shall support the weight of the ladder truck outrigger which is 45,000 lbs over an 18-inch square.

[https://fire.bellevuewa.gov/UserFiles/Servers/Server\\_4779004/File/pdf/Development%20Services/B-1\\_VehicleLoading.pdf](https://fire.bellevuewa.gov/UserFiles/Servers/Server_4779004/File/pdf/Development%20Services/B-1_VehicleLoading.pdf)

Additional fire protection mitigation(s) may be identified related to access and water supply when residential building permit(s) are submitted. Therefore, final review and approval will occur through the associated fire and building construction permits.

AUTHORITY: IFC 503  
REVIEWER: Anna Mickols, Fire Review

**4. UTILITIES CONCEPTUAL APPROVAL**

Utility Department approval of the design review application is based on the conceptual design only. Minor changes to the site layout may be required to accommodate the utilities after land use design review is approved. The water, sewer, and storm drainage systems shall be designed per the current City of Bellevue Utility Codes and Utility Engineering Standards. Utilities Department construction plan review, approval, and field inspection is performed under the Utility Developer Extension Agreement (UE). A water, sewer and storm Developer Extension Agreement will be required for the project. Minor connection permits for building sewer connection UA and meter drop-ins under a UC application will be required. All connection charges will be due with the Utility Developer Extension Agreement prior to issuance of the permit. Easements public and private, specifically the drainage easements through 16827 SE 34th St (Parcel #1224059146), as depicted on the conceptual design plans, are to be recorded and received prior to issuance of construction permits. Easement relinquishments will need to be completed prior to building permit approval when the existing easement crosses the building area.

Building Temporary Occupancy will not be granted until all the utilities constructed under the UE permit have been inspected and accepted by the Utilities Department.

AUTHORITY: BCC 24.02, 24.04, 24.06  
REVIEWER: Roy Andresen, Utilities

**B. CONDITIONS PRIOR TO ISSUANCE OF ANY PLAT ENGINEERING/CLEAR AND GRADE PERMIT:**

**5. RIGHT OF WAY USE PERMIT**

The applicant is required to apply for a Right of Way Use Permit before the issuance of any clearing and grading, building, foundation, or demolition permit. In some cases, more than one Right of Way Use Permit may be required, such as one for hauling and one for construction work within the right of way. A Right of Way Use Permit regulates activity within the city right of way, including but not limited to the following:

- a) Designated truck hauling routes.
- b) Truck loading and unloading activities.
- c) Hours of construction and hauling.
- d) Continuity of pedestrian facilities.
- e) Temporary traffic control and pedestrian detour routing for construction activities.
- f) Street sweeping and maintenance during excavation and construction.
- g) Location of construction fences.
- h) Parking for construction workers.
- i) Construction vehicles, equipment, and materials in the right of way.
- j) All other construction activities as they affect the public street system.

In addition, the applicant shall submit for review and approval a plan for providing pedestrian access during construction of this project. Access shall be provided at all times during the construction process, except when specific construction activities such as shoring, foundation work, and construction of frontage improvements prevents access. General materials storage and contractor convenience are not reasons for preventing access.

AUTHORITY: Bellevue City Code 14.30  
REVIEWER: ROW Review, (425) 452-4189

**6. OFF-STREET PARKING**

The applicant must secure sufficient off-street parking for construction workers, equipment, and materials storage before the issuance of a clearing and grading, building, foundation, or demolition permit.

AUTHORITY: Bellevue City Code 14.30  
REVIEWER: ROW Review, (425) 452-4189

**7. ENGINEERING PLANS**

A street lighting plan, channelization plan, and site (civil engineering) plan produced by a qualified engineer must be approved by the City prior to clear and grading permit approval. The design of all street frontage improvements must be in conformance with the requirements of the Americans with Disabilities Act, the Transportation Development Code, and the provisions of the Transportation Department Design Manual. The engineering plans

must correctly show all transportation-related engineering details, including but not limited to, the design of the private road or shared driveway, the connection to SE 34<sup>th</sup> Street, pavement restoration in SE 34<sup>th</sup> Street, and sight distance. Appropriate standard drawings from the Transportation Department Design Manual must be included in the engineering plans.

Specific requirements are detailed below:

- Provide an 8-foot-wide asphalt shoulder for bike and pedestrian use along the south side of SE 34th Street for the length of the frontage
- Install a new driveway entrance at the south side of the intersection of SE 34th Street and 168th Place SE.
- The private road entrance from SE 34th Street shall be limited to a maximum grade of 10% for the first 20 feet past the back of driveway approach and a maximum grade of 15% thereafter.
- The private roadways will be paved with a minimum width of twenty (20) feet and an easement of twenty-five (25) feet.
- The private road connecting to SE 34th Street shall have a sidewalk with a minimum width of six (6) feet on one side of the roadway.
- Install handrails along the east side of the sidewalk for fall protection.
- Install an ADA ramp at the north end of the new sidewalk that will provide accessibility to the north sidewalk on SE 34th Street.
- On each single-family lot, construct a driveway with a minimum width of 10 feet and a minimum length of 20 feet.
- Install a minimum 16 ft wide concrete joint use driveway at the entrance to the Cheng property with a minimum 20 ft easement.
- Sight distance requirements must be met per BCC 14.60.240 at the private roadway entrance to SE 34th Street.
- Vegetation within the sight distance triangles must be trimmed to a height of 7.5 feet above the ground.
- All overhead utilities into the plat must be undergrounded.
- Street Lighting meeting City of Bellevue's standard per BCC 1.60.210 is required at the entrance from and along SE 34th Street. SE 34th Street is classified as a 'Tertiary' level for streetlights. An AGI analysis will be required to verify that minimum light levels are met.

Construction of all transportation improvements must be completed prior to closing the clear and grade permit and right of way use permit for this project. A Design Justification Form must be provided to the Transportation Department for any aspect of any pedestrian route adjacent to or across any street that cannot feasibly be made to comply with ADA standards. Forms must be provided prior to approval of the clear and grade plans for any deviations from standards that are known in advance. Forms provided in advance may need to be updated prior to project completion. For any deviations from standards that are not known in advance, Forms must be provided prior to project completion.

Americans with Disabilities Act.

REVIEWER: William Bou, Transportation Department

#### **8. SIGHT DISTANCE**

If necessary to meet the sight distance requirements of BCC 14.60.240 and standard drawing TE-1, existing vegetation near the access point on SE 34<sup>th</sup> Street must be trimmed. Ground vegetation within the sight triangle must be trimmed to no more than 2.5 feet above a line drawn from pavement level to pavement level. Trees within the sight triangle must be limbed up to a height of 7.5 feet above a line drawn from pavement level to pavement level. A description of any required vegetation trimming must be shown on a sheet of the clearing and grading plan set.

AUTHORITY: Bellevue City Code 14.60.240

REVIEWER: William Bou, Transportation Department

#### **9. PAVEMENT RESTORATION**

The city's pavement manager, at this time, has determined that this segment of SE 34<sup>th</sup> Street and 168<sup>th</sup> Place SE will need to follow the 'standard trench' restoration requirements for any utility connections or other excavations in the street. Trench restoration must meet the requirements of Section 21 of the Design Manual. Exact copies of the appropriate trench restoration drawing(s) must be included in the final engineering plans.

AUTHORITY: Bellevue City Code 14.60.250 and Design Manual Design Standard # 23

REVIEWER: William Bou, Transportation Department

#### **10. CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN**

A site specific CSWPPP is required for the clearing and grading permit application. It must include a narrative, drawings, and a turbidity and pH monitoring plan. The forms can be found here:

<https://development.bellevuewa.gov/codes-and-guidelines/clearing-grading-codes-and-guidelines/>

AUTHORITY: Clearing & Grading Development Standards

REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

#### **11. EROSION AND SEDIMENTATION CONTROL – MINIMUM REQUIREMENTS 2**

Clearing and Grading and erosion and sedimentation control (ESC) drawings are required for each permit application. They have to show how the construction stormwater will be collected, treated and disposed of.

AUTHORITY: Clearing & Grading Code 23.76.090 and Clearing & Grading Development Standards

REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

## **12. TREE PROTECTION**

Significant trees that are scheduled for retention must be protected during construction. Trees located outside of the areas needed to be cleared for the shared infrastructure construction would not be allowed to be removed under the clearing and grading permit.

AUTHORITY: Clearing & Grading Development Standards  
REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

## **13. CLEARING AND GRADING LIMITS**

Clearing & Grading limits must be presented in the clearing & grading permit application. The limits should encompass the entire project phase (including utilities and frontage improvements)

AUTHORITY: Clearing & Grading Development Standards  
REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

## **14. CONSTRUCTION SEQUENCE**

A project specific construction sequence is required on the ESC drawing. The sequence should include all erosion control and construction milestone.

AUTHORITY: Clearing & Grading Development Standards  
REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

## **15. RAINY SEASON RESTRICTIONS**

The project site is subject to rainy season restrictions. Specific approval from the Development Services Department is required to begin or continue clearing & grading activities during the rainy season (Oct.1 through Apr. 30)

AUTHORITY: Clearing & Grading Code 23.76.093  
REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

## **16. TURBIDITY MONITORING PLAN**

Turbidity and pH monitoring may be required for this project.

AUTHORITY: Clearing & Grading Development Standards  
REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

## **17. ROCKERY REQUIREMENTS**

Rockeries or modular block walls that exceed 48" in height (as measured from the bottom of the base rock to the top) must be designed by a licensed geotechnical engineer. The design and calculations must be submitted to the Clearing & Grading reviewer during review of the Clearing & Grading Permit. Rockeries that exceed 30" in VISIBLE height are considered a structure according to the Land Use Code and are not permitted within structure setbacks.

AUTHORITY: Clearing & Grading Code 23.76.085 & 086  
REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

#### **18. POST CONSTRUCTION SOILS**

For sites that must comply with Minimum Requirement #5, as set forth in BCC 24.06.065, all soils in disturbed areas that have not been covered by impervious surface, incorporated into a drainage facility or engineered as structural fill or slope must be amended with organic matter. Amended soils must meet the specifications of BMP T5.13, as a part of permanent site stabilization.

AUTHORITY: Clearing & Grading Development Standards  
REVIEWER: Savina Uzunow, Development Services Department, Clearing & Grading Section

#### **19. ABATEMENT SECURITY**

Abatement security device is required for any project that involve more than 5,000 square feet of clearing and/or more than 50 cubic yards of excavation and/or fill. The amount of the security will be determined based upon an estimated construction cost for erosion and sedimentation control measures. Currently, the acceptable forms for abatement security device include assignment of savings and bond. The abatement security device must be established and an original of the signed forms must be submitted to the clearing and grading reviewer before the permit can be issued.

AUTHORITY: Clearing & Grading Code 23.76.140  
REVIEWER: Savina Uzunow, Development Services Department, Clearing Grading Section.

#### **20. ECOLOGY'S NOTICE OF INTENT**

If the clearing area associated with this project exceeds one acre or is part of a larger project that will exceed one acre of clearing, Washington State Department of Ecology requires a Notice of Intent to be filed with the agency. The Storm Water Pollution Prevention Plan (SWPPP) prepared for the coverage permit must be submitted to the City of Bellevue for review and approval.

AUTHORITY: Clearing & Grading Code 23.76.140  
REVIEWER: Savina Uzunow, Development Services Department, Clearing Grading Section

#### **21. TREE REMOVAL WITHIN CRITICAL AREA STRUCTURE SETBACK**

Removal of existing hazardous trees within the stream structure setback may be allowed with a Clearing and Grading Permit in conformance with LUC 20.25H.055.C.i.ii without an approved Critical Areas Land Use Permit (CALUP). If the review of the GE Permit does not confirm a tree hazard, these trees must be retained. **Refer to Condition of Approval regarding Tree Retention in Section IX.C below.**

AUTHORITY: LUC 20.25H.055.C.3.ii. A – F.  
REVIEWER: Mark C. Brennan, Land Use

#### C. PRIOR TO FINAL SHORT PLAT APPROVAL:

##### **22. INFRASTRUCTURE IMPROVEMENTS**

All transportation infrastructure improvements shown in the final engineering plans or required by city codes and standards must be completed prior to approval of the final short plat. Include all areas disturbed during construction that needs to be restored to the original condition or better. If all the requirements of BCC 14.60.260 are met, the director may accept an acceptable financial assurance device equivalent to 150% of the cost of the unfinished improvements. Installation of improvements that would negatively affect safety if left unfinished may not be delayed through use of a financial assurance device. Improvements must be approved by the Transportation Department inspector before they are deemed complete.

AUTHORITY: Bellevue City Code 14.60.100, 110, 130, 150, 170, 190, 210, 240, 241, 260, Transportation Department Design Manual Sections 3, 4, 5, 7, 11, 14, 19  
REVIEWER: William Bou, Transportation Department

##### **23. ACCESS DESIGN AND MAINTENANCE**

The final Subdivision map must include a note that specifies that the owners of lots served by the private road are jointly responsible for maintenance and repair of the private road. Also, the final Subdivision map must include a note that specifies that the private road will remain open at all times for emergency and public service vehicles and shall not be gated or obstructed.

AUTHORITY: BCC 14.60.130  
REVIEWER: William Bou, Transportation Department

##### **24. DEMOLITION OF EXISTING STRUCTURES**

The applicant shall remove the existing house and outbuilding prior to final short plat approval and shall provide survey verification that these structures have been removed.

AUTHORITY: Land Use Code 20.20.010  
REVIEWER: Mark C. Brennan, Land Use

##### **25. TREE RETENTION**

The final short plat shall portray a minimum of 30% (253.2 diameter inches of existing significant trees to remain) If existing trees are found to be hazards then replanting of new trees will be required and shown on the Final Plat. A Tree Preservation Plan that portrays the drip-line, the diameter size, and common name of each significant tree to be retained and planted must be recorded with the final short plat mylar (recorded with King County). This Tree Preservation Plan must also contain the following note:

*“Designation of trees on the Tree Preservation Plan establishes a covenant by the owner*

*to leave undisturbed all trees as shown on the Tree Preservation Plan. This covenant shall run with the land and shall be binding upon all future owners. No tree topping, tree cutting, or tree removal shall occur unless required or approved by the City. Except for ordinary landscape maintenance, no construction, clearing or land alteration activities shall occur within the drip-line of trees shown on the Tree Preservation Plan unless required or approved by the City. Activities in violation of this covenant are subject to penalty, including without limitation, fines and mitigation requirements. The City of Bellevue shall have the right, but not the obligation, to enforce the requirements, terms, and conditions of this covenant by any method available under law. It is the obligation of the owner to comply with the terms of the Tree Preservation Plan and this covenant."*

During future construction, the dripline of the trees to be saved shall be fenced to prevent clearing & grading activities within the dripline area.

AUTHORITY: Land Use Code 20.20.900.D, 20.25H.055.C.3.ii.  
REVIEWER: Mark C. Brennan, Land Use

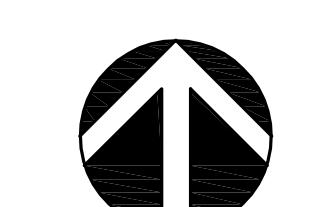
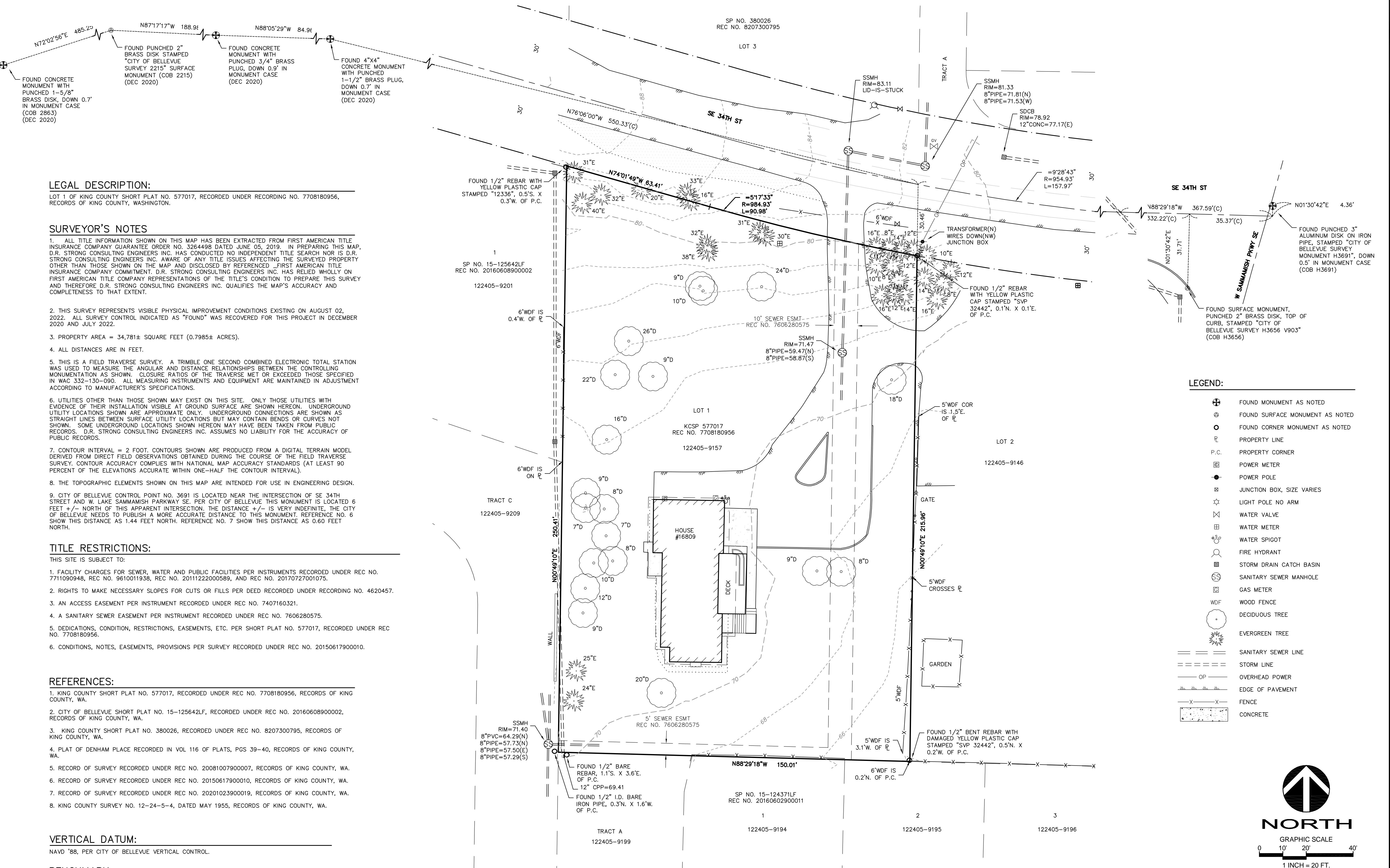
#### **26. CRITICAL AREA STRUCTURE SETBACK FROM CLOSED TYPE-N STREAM SEGMENT**

The Final Short Plat shall portray the 10' structure setback from the edge of the piped Type-N stream per LUC 20.25H.075.D.2.b. Future development on the lots will be required to comply with the stream structure setback and allowances in LUC 20.25H.

AUTHORITY: Land Use Code 20.25H.055  
REVIEWER: Mark C. Brennan, Land Use

# BOUNDARY AND TOPOGRAPHIC SURVEY

A PORTION OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER  
SECTION 12, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M.,  
CITY OF BELLEVUE, KING COUNTY, WASHINGTON



NORTH

GRAPHIC SCALE

0 10' 20' 40'

1 INCH = 20 FT.

BASIS OF BEARINGS:

N7202'56"E (NAD 83/91) BETWEEN THE MONUMENTS FOUND IN PLACE ALONG SE 34TH ST. (COB 2863 TO COB 2215)

PROJECT SURVEYOR: DAS  
DRAFTED BY: DAS  
FIELD BOOK: 291  
DATE: 08-29-22  
PROJECT NO.: 17152

SHEET: 1 OF 1

16809 SE 34TH ST  
BELLEVUE, WA 98008  
TAX PARCEL NO. 122405-9157

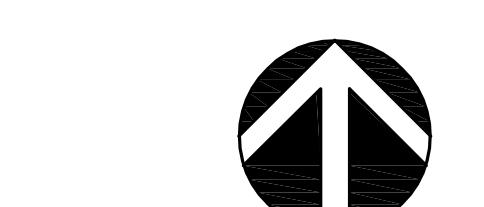
GARMIN LONG  
12609 NE 104TH ST  
KIRKLAND, WA 98033



APR  
REVISION  
DATE

## LEGEND:

- FOUND MONUMENT AS NOTED
- FOUND SURFACE MONUMENT AS NOTED
- FOUND CORNER MONUMENT AS NOTED
- P.L. PROPERTY LINE
- P.C. PROPERTY CORNER
- P.M. POWER METER
- P.P. POWER POLE
- J.B. JUNCTION BOX, SIZE VARIES
- L.P. LIGHT POLE NO ARM
- W.V. WATER VALVE
- W.M. WATER METER
- W.S. WATER SPIGOT
- S.D. STORM DRAIN CATCH BASIN
- S.S. SANITARY SEWER MANHOLE
- G.M. GAS METER
- W.F. WOOD FENCE
- D.T. DECIDUOUS TREE
- S.S.L. SANITARY SEWER LINE
- S.L. STORM LINE
- O.P. OVERHEAD POWER
- E.P. EDGE OF PAVEMENT
- FENCE
- CONCRETE



NORTH

GRAPHIC SCALE

0 10' 20' 40'

1 INCH = 20 FT.

BASIS OF BEARINGS:

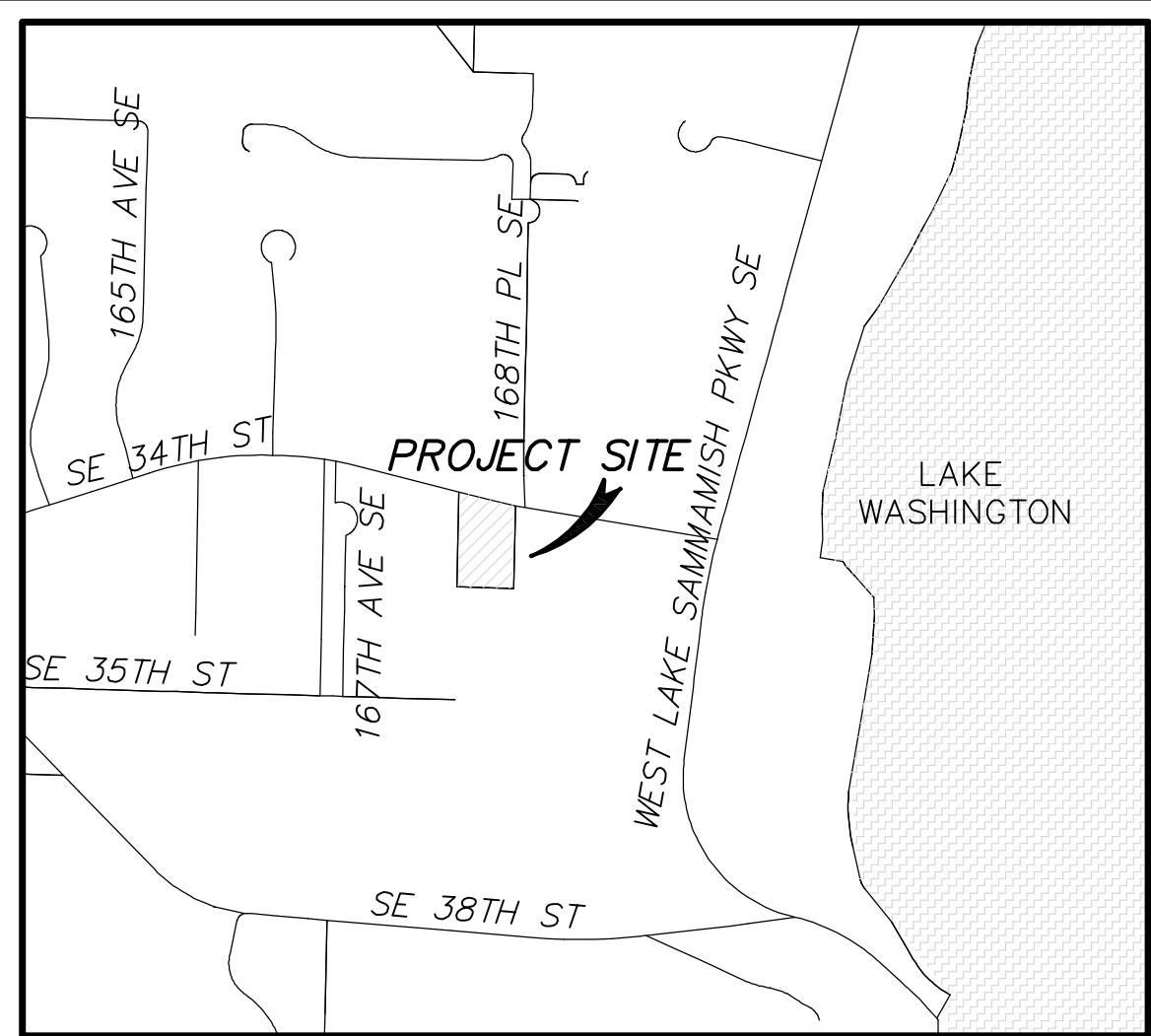
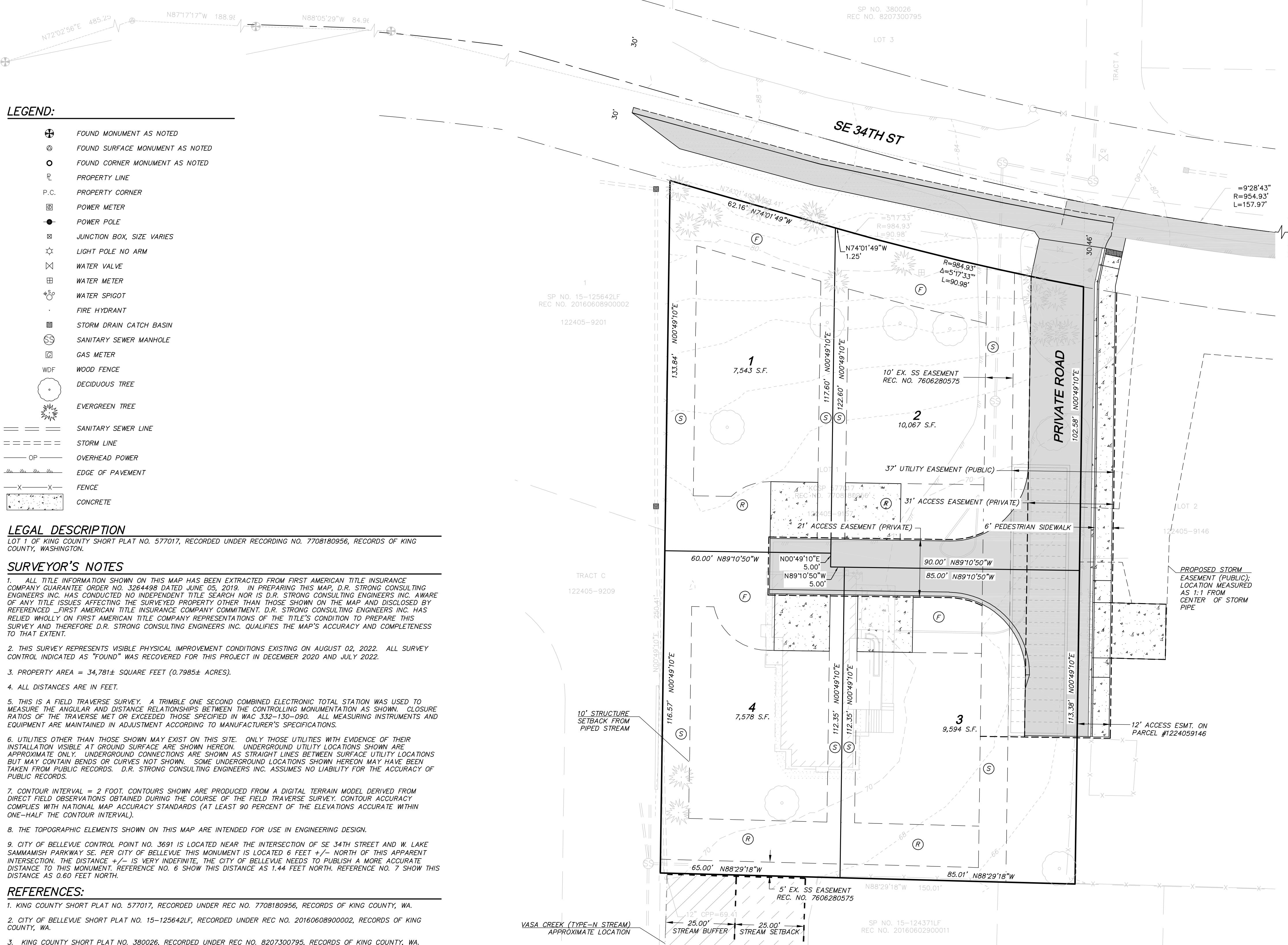
N7202'56"E (NAD 83/91) BETWEEN THE MONUMENTS FOUND IN PLACE ALONG SE 34TH ST. (COB 2863 TO COB 2215)

PROJECT SURVEYOR: DAS  
DRAFTED BY: DAS  
FIELD BOOK: 291  
DATE: 08-29-22  
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SHEET: 1 OF 1

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## LONG SHORT PLAT



**DRS**  
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O 425.827.3063 F 425.827.2423

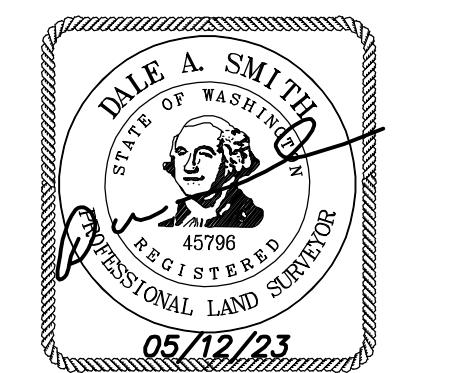
**LONG SHORT PLAT**

**PRELIMINARY SHORT PLAT**

16809 SE 34TH STREET  
BELLEVUE, WA 98008  
PARCEL NO. 1224059157

**GARMIN LONG**

12609 NE 104TH STREET  
KIRKLAND, WA 98033  
(206) 930-3065



APR  
MAJ

REVISION  
CITY COMMENTS

DATE  
5/10/23

DRAFTED BY: NBM  
DESIGNED BY: NBM  
PROJECT ENGINEER: MAJ  
DATE: 01.03.2023  
PROJECT NO.: 17152

DRAWING: C1  
SHEET: 1 OF 5



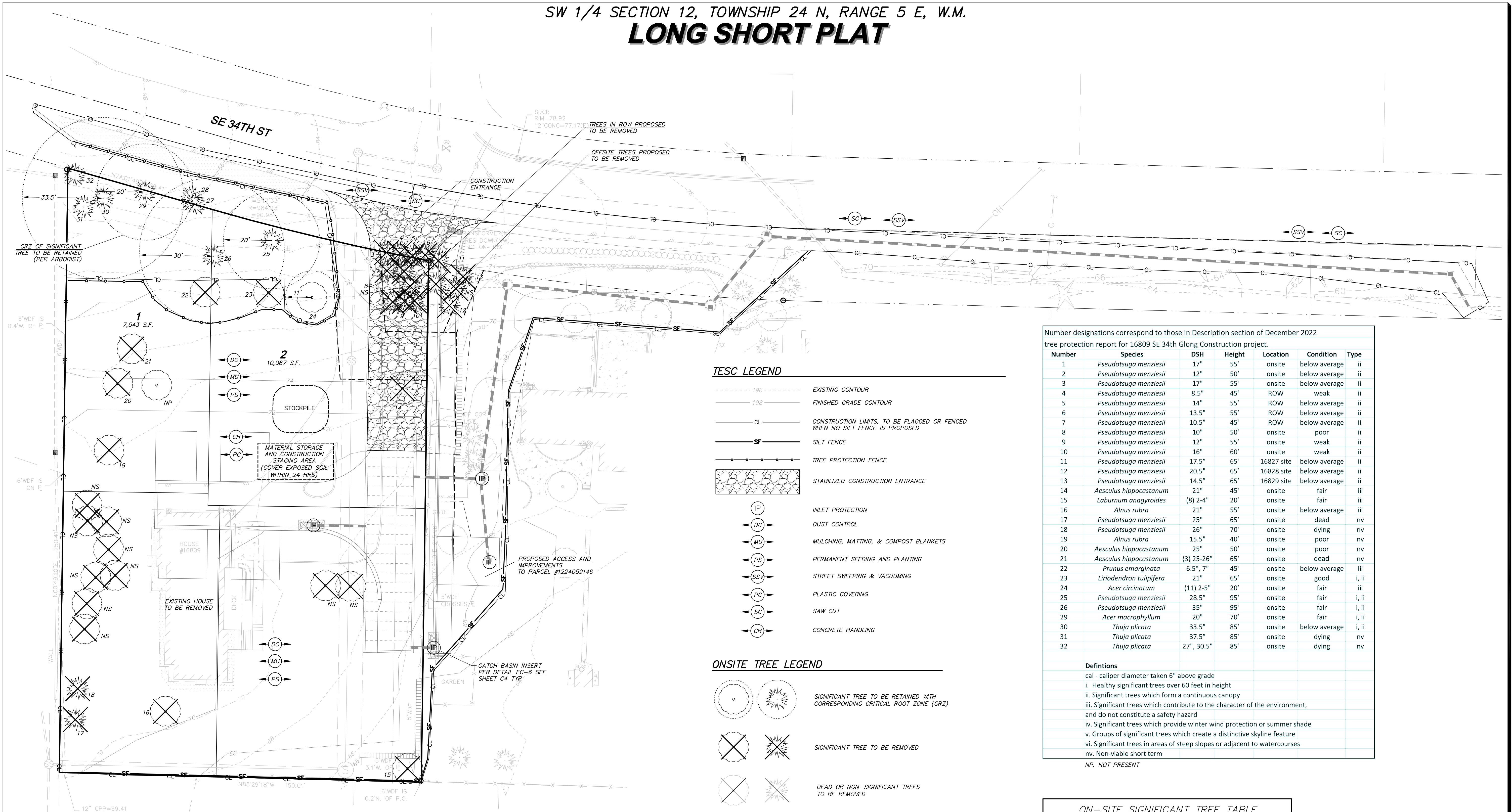
811  
Utilities Underground Location Center  
(ID, MT, ND, OR, WA)

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## LONG SHORT PLAT



Number designations correspond to those in Description section of December 2022 tree protection report for 16809 SE 34th Glong Construction project.

Number	Species	DSH	Height	Location	Condition	Type
1	Pseudotsuga menziesii	17"	55'	onsite	below average	ii
2	Pseudotsuga menziesii	12"	50'	onsite	below average	ii
3	Pseudotsuga menziesii	17"	55'	onsite	below average	ii
4	Pseudotsuga menziesii	8.5"	45'	ROW	weak	ii
5	Pseudotsuga menziesii	14"	55'	ROW	below average	ii
6	Pseudotsuga menziesii	13.5"	55'	ROW	below average	ii
7	Pseudotsuga menziesii	10.5"	45'	ROW	below average	ii
8	Pseudotsuga menziesii	10"	50'	onsite	poor	ii
9	Pseudotsuga menziesii	12"	55'	onsite	weak	ii
10	Pseudotsuga menziesii	16"	60'	onsite	weak	ii
11	Pseudotsuga menziesii	17.5"	65'	16827 site	below average	ii
12	Pseudotsuga menziesii	20.5"	65'	16828 site	below average	ii
13	Pseudotsuga menziesii	14.5"	65'	16829 site	below average	ii
14	Aesculus hippocastanum	21"	45'	onsite	fair	iii
15	Laburnum anagyroides	(8) 2.4"	20'	onsite	fair	iii
16	Alnus rubra	21"	55'	onsite	below average	iii
17	Pseudotsuga menziesii	25"	65'	onsite	dead	nv
18	Pseudotsuga menziesii	26"	70'	onsite	dying	nv
19	Alnus rubra	15.5"	40'	onsite	poor	nv
20	Aesculus hippocastanum	25"	50'	onsite	poor	nv
21	Aesculus hippocastanum	(3) 25-26"	65'	onsite	dead	nv
22	Prunus emarginata	6.5", 7"	45'	onsite	below average	iii
23	Liriodendron tulipifera	21"	65'	onsite	good	i, ii
24	Acer circinatum	(11) 2-5"	20'	onsite	fair	iii
25	Pseudotsuga menziesii	28.5"	95'	onsite	fair	i, ii
26	Pseudotsuga menziesii	35"	95'	onsite	fair	i, ii
29	Acer macrophyllum	20"	70'	onsite	fair	i, ii
30	Thuja plicata	33.5"	85'	onsite	below average	i, ii
31	Thuja plicata	37.5"	85'	onsite	dying	nv
32	Thuja plicata	27", 30.5"	85'	onsite	dying	nv

**Definitions**

cal - caliper diameter taken 6" above grade

i. Healthy significant trees over 60 feet in height

ii. Significant trees which form a continuous canopy

iii. Significant trees which contribute to the character of the environment, and do not constitute a safety hazard

iv. Significant trees which provide winter wind protection or summer shade

v. Groups of significant trees which create a distinctive skyline feature

vi. Significant trees in areas of steep slopes or adjacent to watercourses

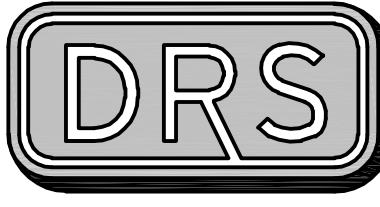
nv. Non-viable short term

NP. NOT PRESENT

## ON-SITE SIGNIFICANT TREE TABLE

TREE #	TREE SPECIES	DBH (IN.)	RETAINED TREE (IN.)
1	PSEUDOTSUGA MENZIESII	17	
2	PSEUDOTSUGA MENZIESII	12	
3	PSEUDOTSUGA MENZIESII	17	
8	PSEUDOTSUGA MENZIESII	10	
9	PSEUDOTSUGA MENZIESII	12	
10	PSEUDOTSUGA MENZIESII	16	
14	AESCIULUS HIPPOCASTANUM	21	
15	LABURNUM ANAGYROIDES	*22	
16	ALNUS RUBRA	21	
18	PSEUDOTSUGA MENZIESII	26	
19	ALNUS RUBRA	15.5	
20	AESCIULUS HIPPOCASTANUM	25	
22	PRUNUS EMARGINATA	*13.5	
23	LIRIODENDRON TULIPIFERA	21	
24	ACER CIRCINATUM	*41	*41
25	PSEUDOTSUGA MENZIESII	28.5	28.5
26	PSEUDOTSUGA MENZIESII	35	35
29	ACER MACROPHYLLUM	20	20
30	THUJA PLICATA	33.5	33.5
31	THUJA PLICATA	37.5	
32	THUJA PLICATA	*57.5	
	TOTAL	502 (30% = 150.6)	158 (31%)

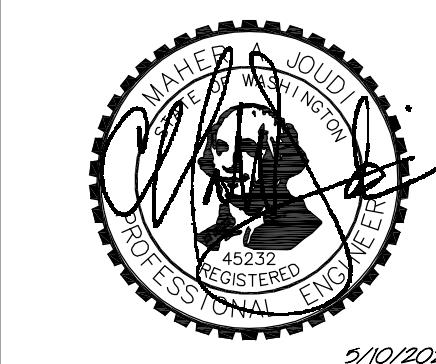
(\* CREDIT VALUE FOR MULTI-LEADER TREES IS THE SUM OF EACH LEADER AT DBH. CRZ RADIUS SHOWN IN PLAN VIEW PROVIDED BY ARBORIST.



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LONG SHORT PLAT  
PRELIMINARY T.E. S.C. PLAN AND  
TREE PRESERVATION PLAN  
16809 SE 34TH STREET  
BELLEVUE, WA 98008  
PARCEL NO. 1224059157

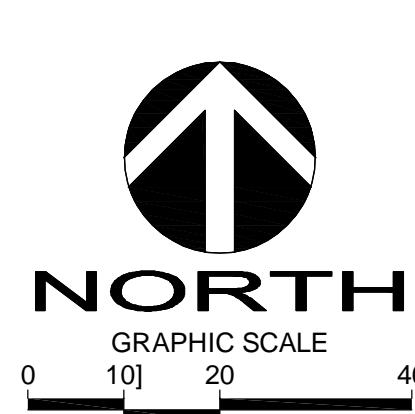
GARMIN LONG  
12609 NE 104TH STREET  
KIRKLAND, WA 98033  
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APR  
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5/10/23



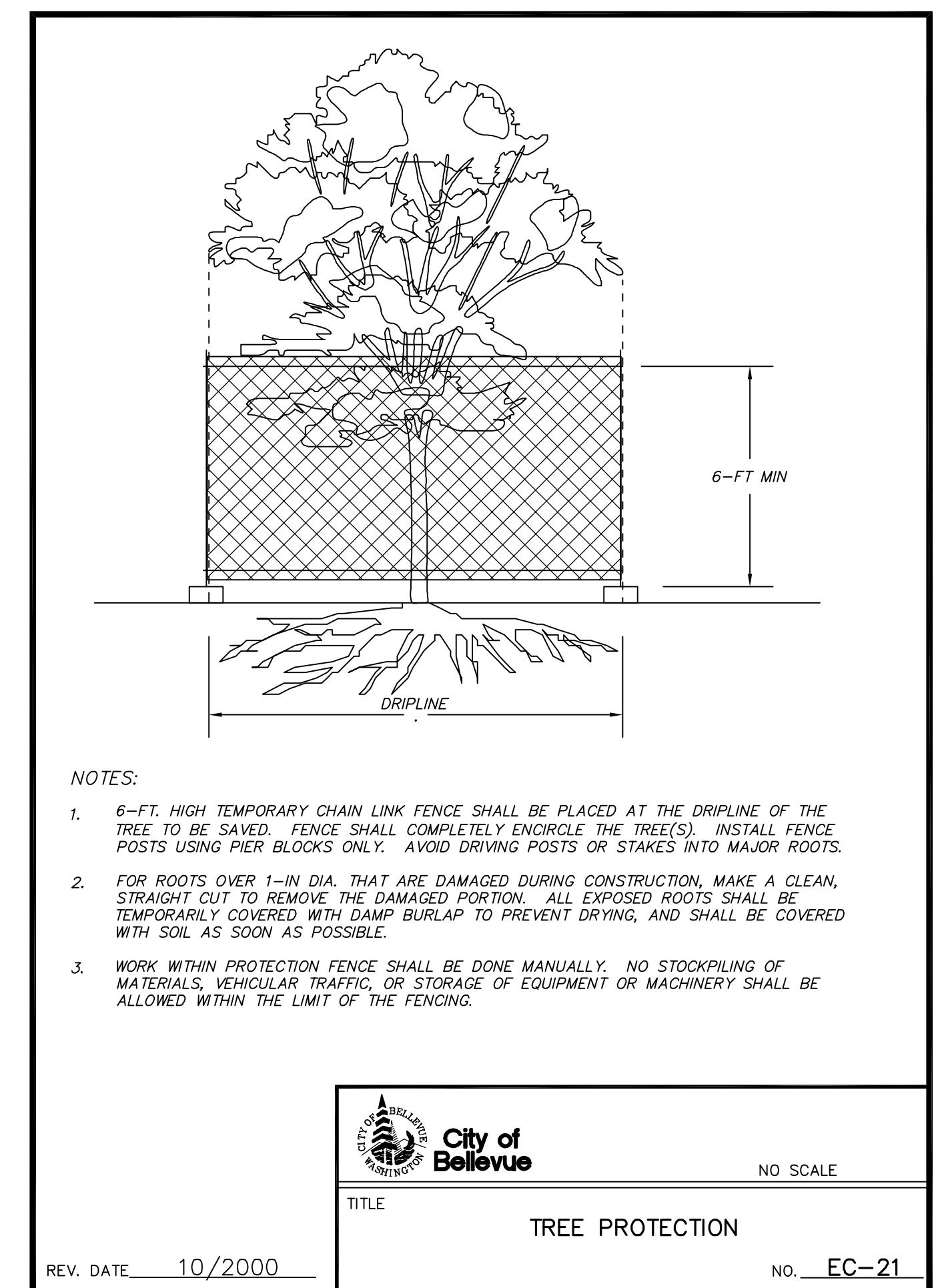
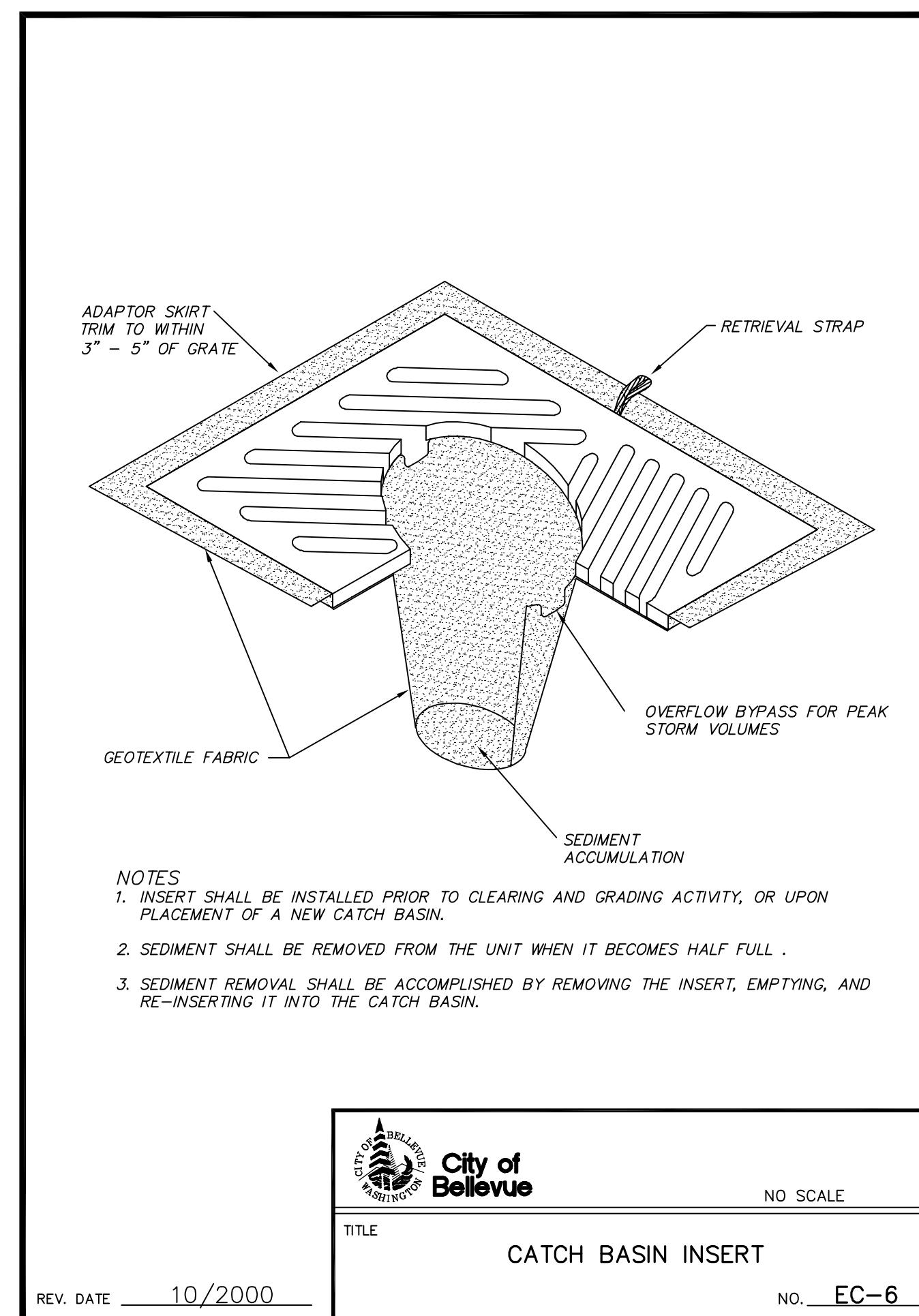
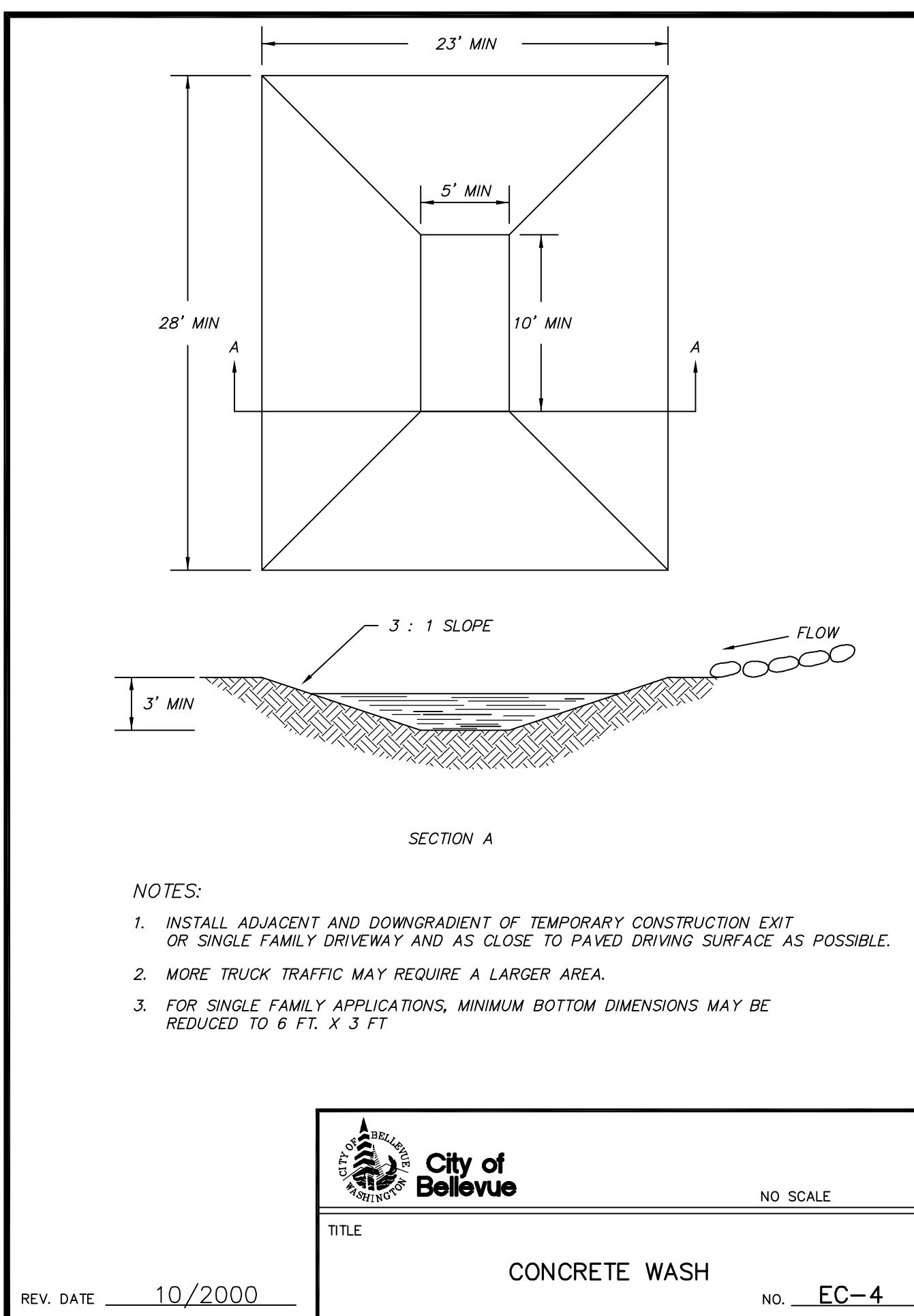
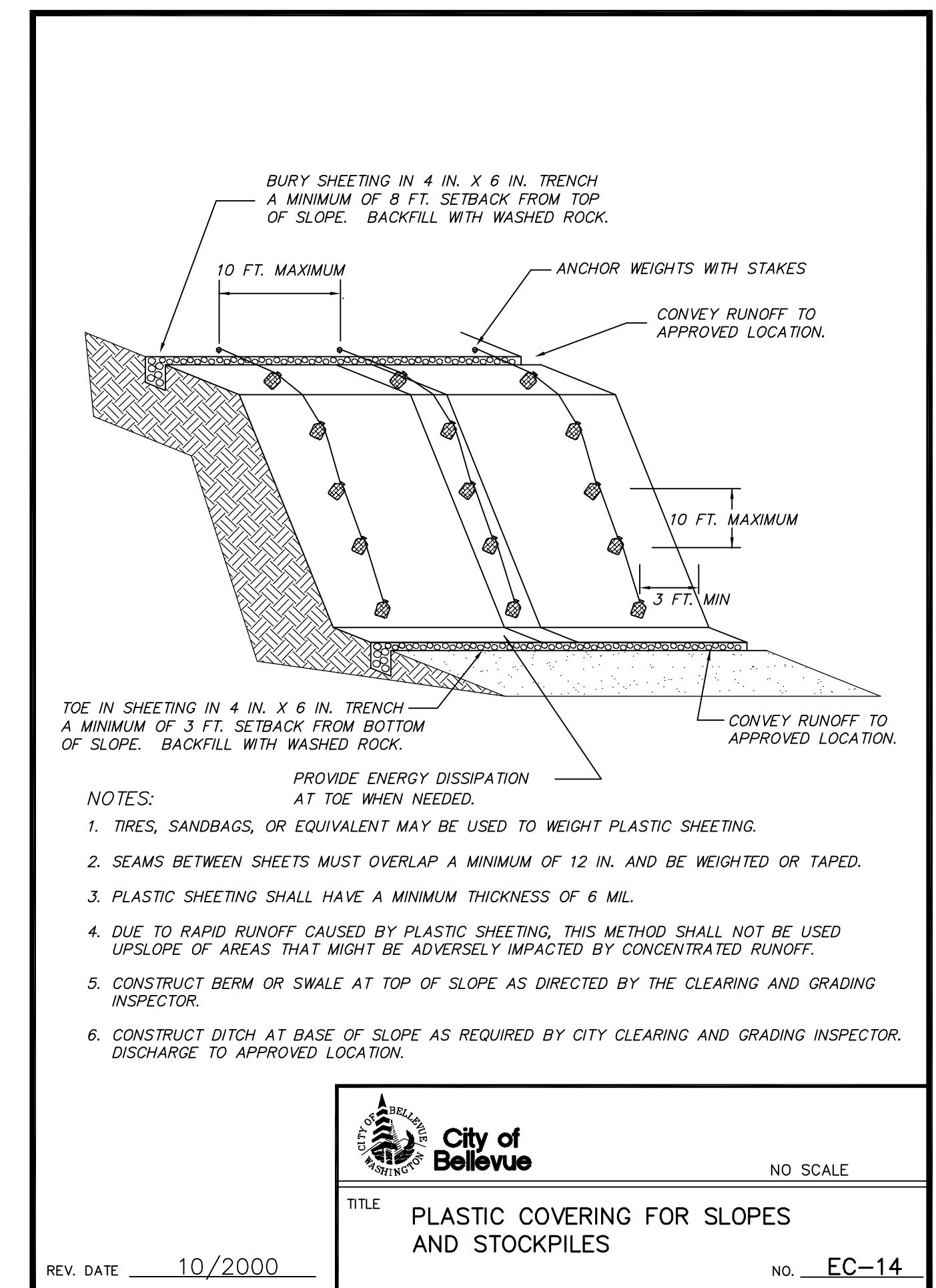
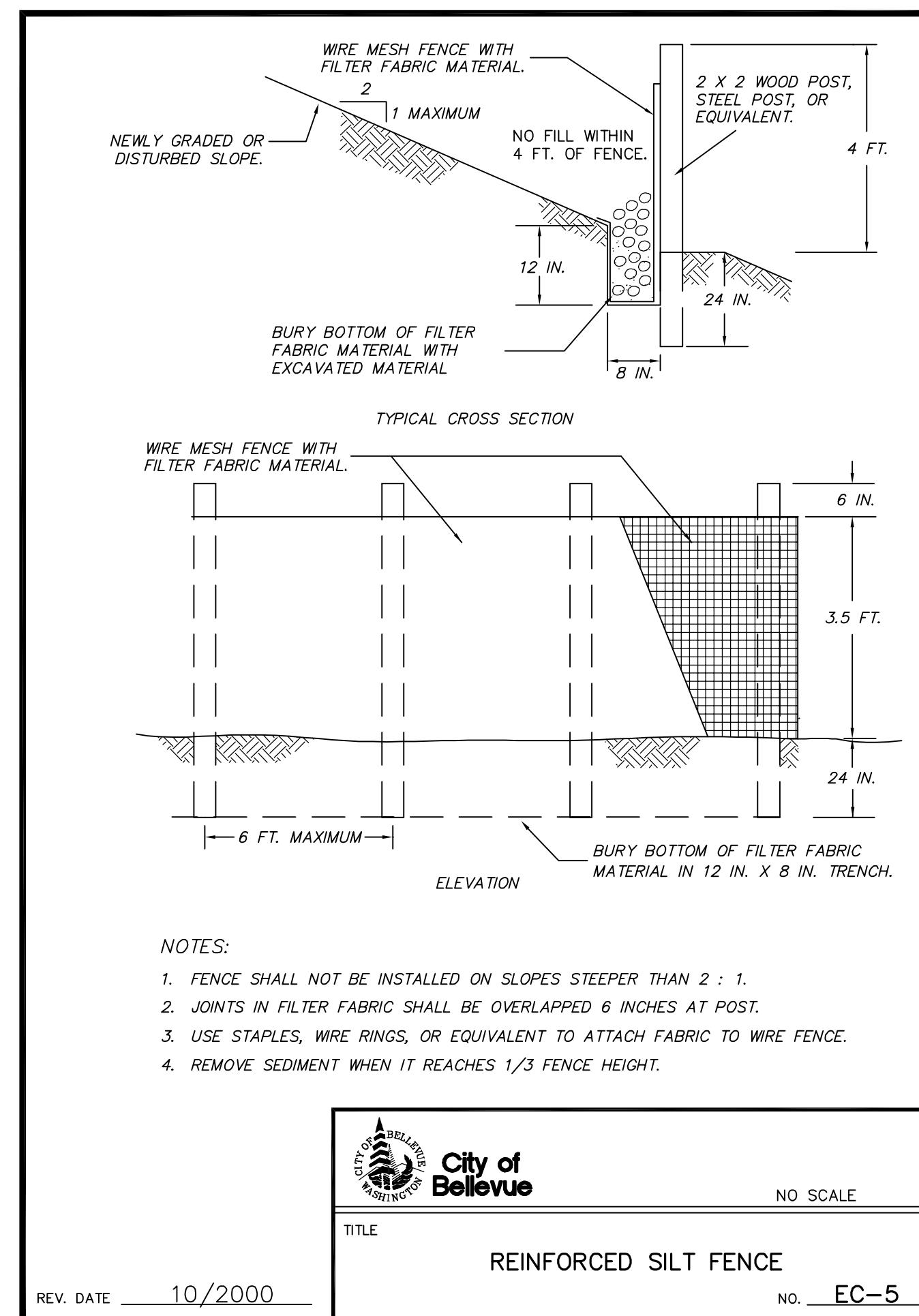
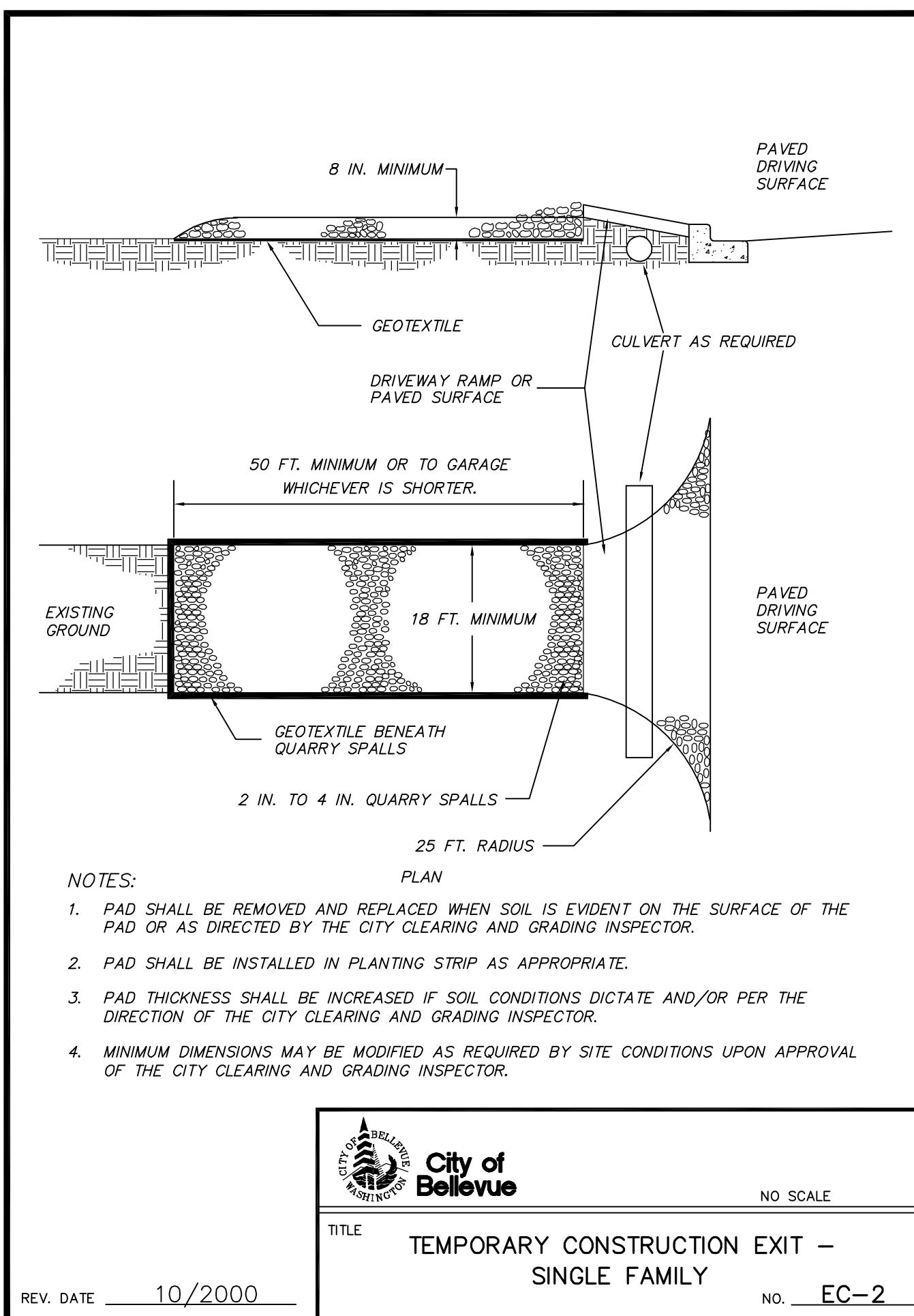
GRAPHIC SCALE  
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1 INCH = 20 FT.

DRAFTED BY: NBM  
DESIGNED BY: NBM  
PROJECT ENGINEER: MAJ  
DATE: 01.03.2023  
PROJECT NO.: 17152  
Utilities Underground Location Center  
(ID, MT, ND, OR, WA)  
Call 2 Working Days Before You Dig  
811

DRAWING: C3  
SHEET: 3 OF 5

SW 1/4 SECTION 12, TOWNSHIP 24 N, RANGE 5 E, W.M.

# **LONG SHORT PLAT**

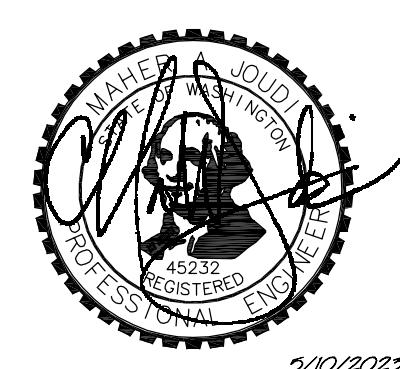


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**T.E.S.C. DETAILS**  
**16809 SE 34TH STREET**  
**BELLEVUE, WA 98008**  
**PARCEL NO. 1224059157**

# LONG SHORT PLA

**GARWIN LONG**

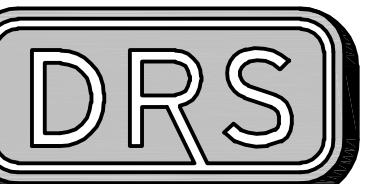


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10.23				

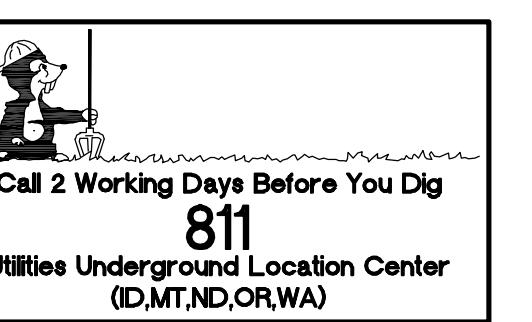
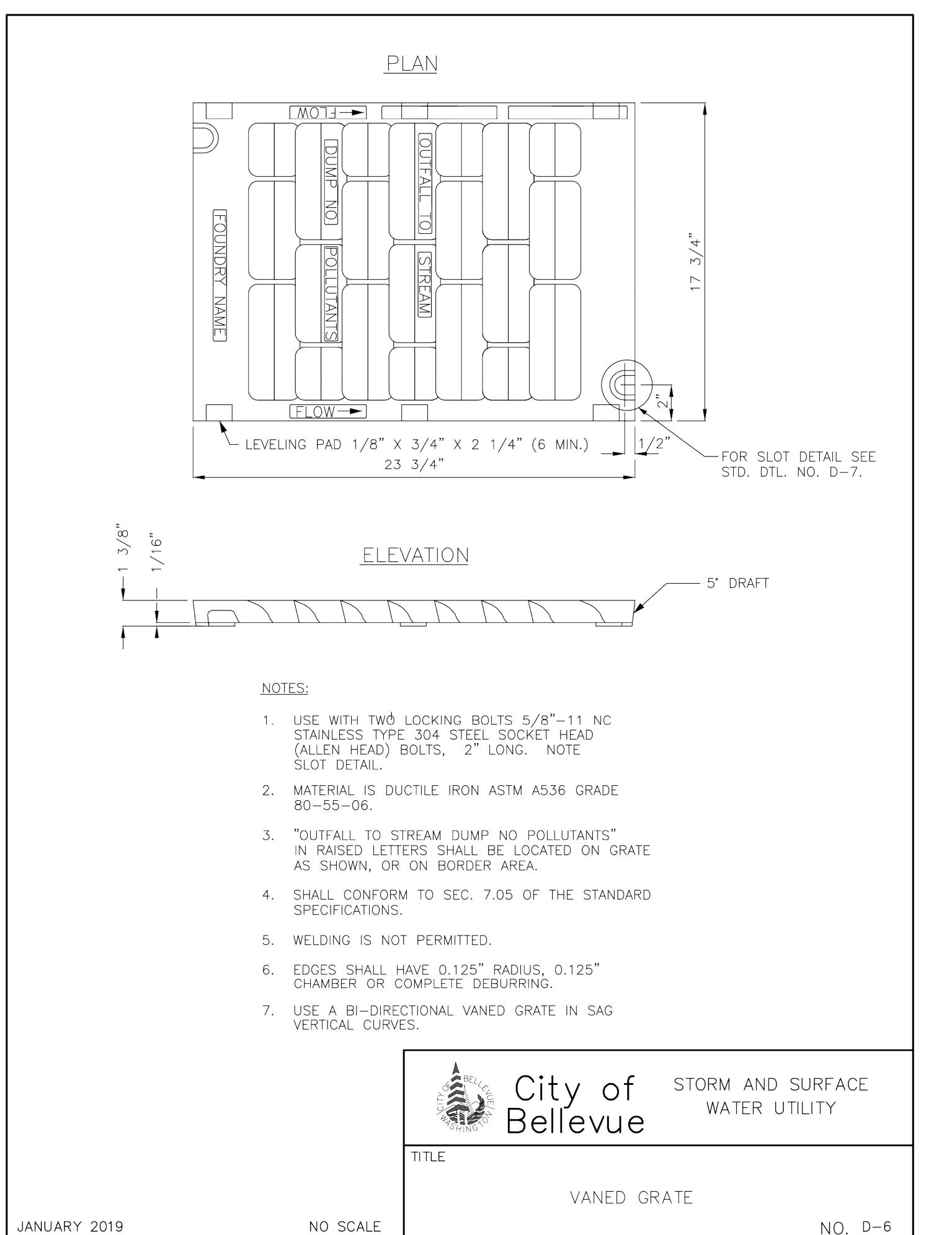
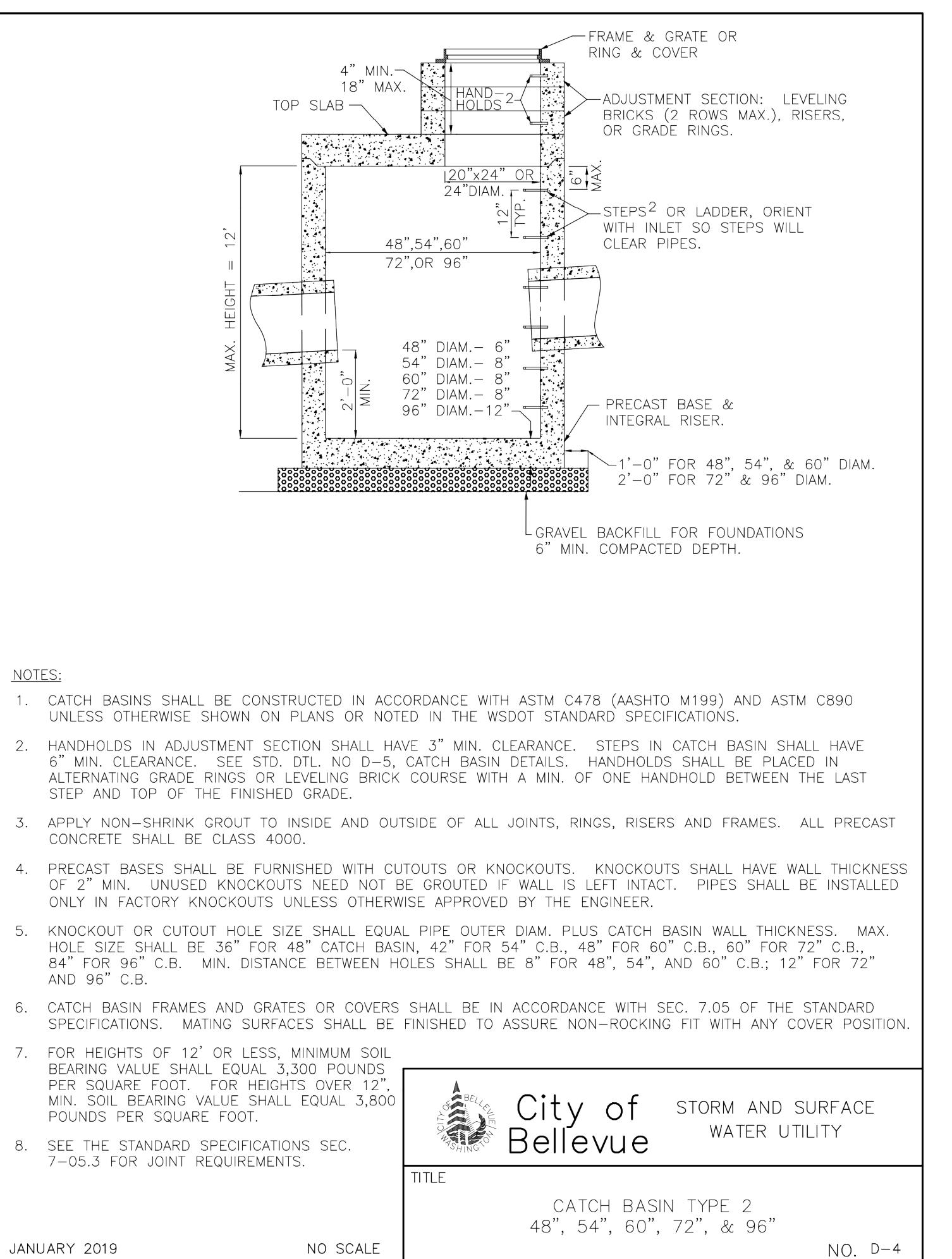
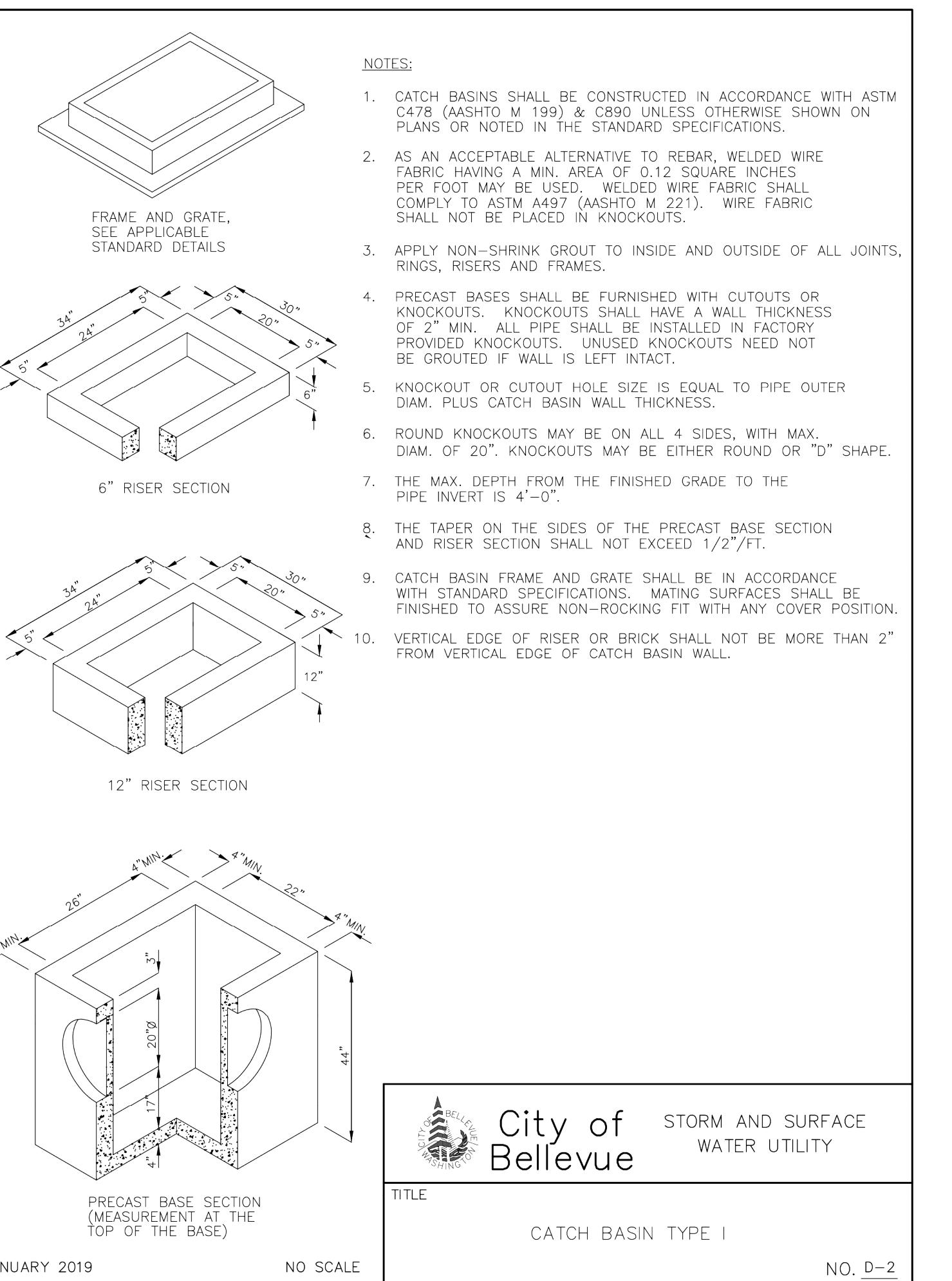
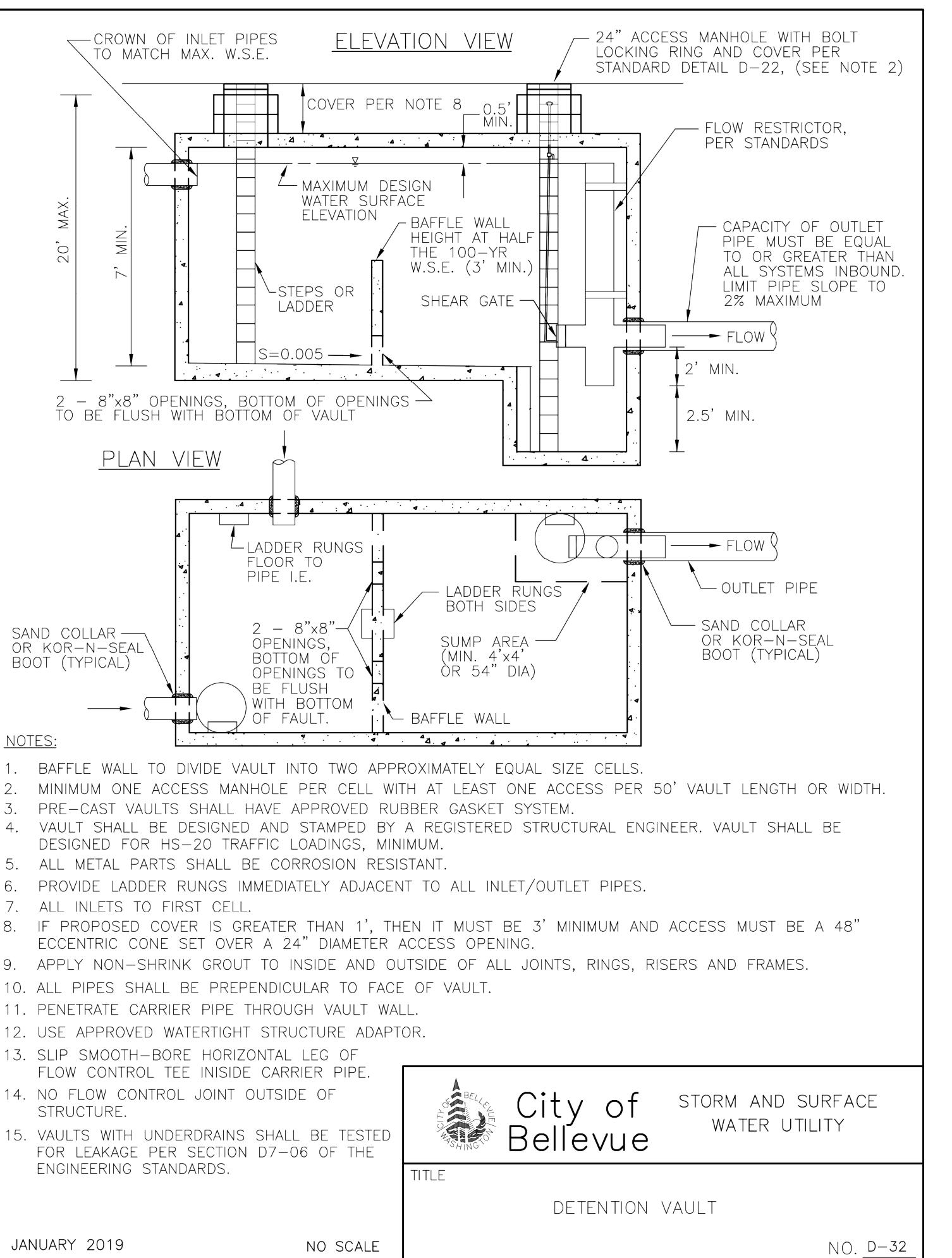
DRAFTED BY: **NBM**  
DESIGNED BY: **NBM**  
PROJECT ENGINEER: **MAJ**  
DATE: **01.03.2023**  
PROJECT NO.: **17152**

DRAWING: **C4**  
SHEET: **4 OF 5**

## LONG SHORT PLAT



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LONG SHORT PLAT  
STORM DETAILS  
16809 SE 34TH STREET  
BELLEVUE, WA 98008  
PARCEL NO. 1224059157

GARMIN LONG  
12609 NE 104TH STREET  
KIRKLAND, WA 98033  
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APR  
MAJ  
REVISION  
CITY COMMENTS  
DATE  
5/10/23

DRAFTED BY: NBM  
DESIGNED BY: NBM  
PROJECT ENGINEER: MAJ  
DATE: 01.03.2023  
PROJECT NO.: 17152

DRAWING: C5  
SHEET: 5 OF 5



September 2, 2021

**Project:** Pre-construction assessment for re-development of parcel at 16809 SE 34<sup>th</sup> Street, Bellevue, WA. Parcel number 1224059157.

**Contact:** Garwin Long – Glong Construction Corp  
5731 111<sup>th</sup> Avenue SE, Bellevue, WA 98006  
Phone - 206 930 3065 Email – [garwinlong@hotmail.com](mailto:garwinlong@hotmail.com)

**Objectives:** Evaluate health of existing trees and establish criteria for the preservation of those to be retained.

**Description:** The main layout of the 16809 parcel has been mostly undisturbed since the existing house was built in 1977. The lot shares its east side and main entry drive with the 16827 property next door (Figure 1). The areas to its west and south were sub-developed starting in 2015 with the last houses being finished in 2018 (Figures 2 and 3). The clearing and grading work came right to edge of the shared property lines over the entire south side and most of the west side.

The subject property was purchased in 2016 by the current owners. They have proposed dividing the parcel into two lots and building another home on the north side while keeping the existing house. They spoke to the owner of the 16827 property about their intentions and found out that they were likewise working on splitting their parcel. The two parties agreed that the entry driveway would have to be redesigned to allow better access to the existing and planned homes.

Superior NW Enterprise was contacted and asked to assess all the trees present on the lot as to their health, stability, and overall suitability for retention. The following itemized tree list begins in the area of the NE corner and their numerical designations are reflected in Figures 4 and 5. Diameters were measured at the standard height of 54" above grade (DSH) during the November and December 2022 site visits. Caliper measurements were made at 6" above grade. Heights were estimated. Some of the trees were previously tagged with metal strips near the 6' level and those numerical designations are noted for each tree and reflected in Figure 6.

1. Douglas fir (*Pseudotsuga menziesii*) 17" DSH, 55' tall with its canopy entirely in the SW quadrant mainly due to phototropism. Tree stands 4' E of the edge of the entry drive and 46' S of the white line on 34<sup>th</sup> Street. It exhibits below average new growth and color. Previously tagged as #1080.

2. Douglas fir 12" DSH, 50' tall with its canopy limited to the west side in a fairly narrow column due to phototropism and crowding. It stands 4' E of the entry drive asphalt and 12' N of #1. Below average condition. Previously tagged as #1081.

3. Douglas fir 17" DSH, 55' tall with its canopy mainly in the NW quadrant. Exhibits below average condition. Tree stands 7' N of #2, 4' E of the entry driveway asphalt, and 11' S of the small section of wood fence on the east side of the entry off 34<sup>th</sup> Street. It appears to be on or slightly north of the property line. Tree is in below average condition. Previously tagged as #1082.

4. Douglas fir 8.5" DSH, 45' tall with canopy limited to spindly, nearly single layer column to the north side. Tree is in weak condition with limited new growth and dull color. It stands 10' S of the wooden fence section, 5.5' E of #3. Previously tagged as #1083.

5. Douglas fir 14" DSH, 55' tall with canopy in a narrow column to the north side until it reaches the 40' range where the branches spread radially. Shows below average condition. Tree stands 10' S of the wood fence section, 5' E of #4. Previously tagged as #1084.

6. Douglas fir 13.5" DSH, 55' tall with majority of the canopy in the NE quadrant except for a couple of branches in mid column. Tree is in below average condition. It stands 5' E of #5, 9' S of the fence section (which ends shortly west of the tree). An electrical vault is 4' N of its base, the utility pole is 5' to its NE quadrant, and the NW property corner marker post is 28" SE of the tree. It is in below average condition. Previously tagged as #1080.

7. Douglas fir 10.5" DSH, 45' tall, has a significant kink (may have been topped) at the 20' level. Tree stands 44" E of the NW corner post, 6' SSE of the utility pole, 6' E and slightly south of the #6 tree, and fully on the 16827 property. Below average new growth and fair color. Previously tagged as #1086.

8. Douglas fir 10" DSH 50' tall, has a significant kink at the 40' mark. Poor condition with maybe 5% viable canopy on the tree. It is 80" E of #2 and 8' S of #4. Previously tagged as #1087.

9. Douglas fir 12" DSH, 55' tall with its canopy limited to a narrow column down the south side. Weak condition. Stands 5' E of #1, 9' NE of the driveway as it curves to enter the subject property, and 12' N of the asphalt as straightens to the east. Previously tagged as #1088.

10. Douglas fir 16" DSH, 60' tall with majority of the canopy to the south. Weak condition. Tree stands 4' E of #9 and 14' N the driveway. Previously tagged as #1089.

11. Douglas fir 17.5" DSH, 65' tall with its canopy limited to the upper quarter of the column. In below average condition. Tree stands 9' S and 12" E of the NW corner marker and nearly in line north to south with the utility pole. It is 10' ENE of the #10 tree and fully on the 16827 side of the line. Previously tagged as #1090.

12. Douglas fir 20.5" DSH, 65' tall with its canopy mainly in southern hemisphere except for the upper 25' of the column. In below average condition. The tree stands 13' E of #10, 6' back and above the 16827 driveway as it curves to the northeast into the upper section of the round-a-bout. The tree leans slightly to the southeast from the base returning to vertical above 18' level. Previously tagged as #1091.

13. Douglas fir 14.5" DSH, 65' tall with the canopy below the 40' mark limited to the SE quadrant but filling out the east side completely above that level. In below average condition with ivy reaching 18' up its stem. The tree stands 9' NW of the driveway curve and about 3' above it. It is 12' N and slightly east of #12, 14' E and 4' S of the NW corner marker. Previously tagged as #1092.

14. European Horse chestnut (*Aesculus hippocastanum*) 21" DSH, 45' tall, 16' radial spread in fair condition. Tree appears to be fighting off anthracnose. The tree stands at the end of a peninsula like landscape island where the entry drive splits between the subject and the 16827 properties (Figure 7). The subject side is 4.5' W of the tree and the end of the peninsula widens to 5' away and then as it turns the corner into the 16827 property it is 11' out from the base of the tree.

15. Golden Chain (*Laburnum anagyroides*) standing 15' N of the south fence and 12' W of the east fence (Figure 8). The tree tipped over at some point, re-rooted, and is now growing up into the 20' range. Eight 2-4" DSH stems are present and the canopy spreads amorphously because of the pressure of the large English Laurel behind it. Fair health.

16. Red alder (*Alnus rubra*) 21" DSH, 55' tall, 18' nearly radial spread. Stands 14' off the SW corner of the existing house. Tree is in decline with dieback just starting in the upper canopy. The mid upper to lower canopy is still in fair condition. Branches are encroaching on the corner of the house.

17. Dead Douglas fir 25" DSH, 65' tall standing 22' N of the SW corner marker and 5' off the west side 30" tall Keystone retaining wall that was created during the 2015-2018 construction event. The wall supports the roadbed for the entrance drive to the homes in the west side development. The base of the road is about 5' above the grade near this tree.

18. Douglas fir 26" DSH, 70' tall standing 8' E of the retaining wall and 12' N of #17. Tree is in weak condition with minimal new growth, sparse canopy, and dull color.

There is a line of alder, wild plum, hazel, maple, and walnut volunteers on the west side of the existing house that starts near the #18 tree and runs for around 80' to the north. Their stems are tangled together and blackberries are crossing through their canopies. None reach the threshold of significance and based on their poor structures have little chance of becoming viable trees. They are noted as 'ns' in the tree plots.

19. Red alder 15.5" DSH, main stem broke out near the 25' mark, large epicormics originating near the 20' point reach into the 40' range (Figure 9). It stands 30' NW of the NW corner of the existing house. The tree may have been a twisted pair or had a subordinate spar that failed. It has an open decay column with a beam fracture running from 6' up to the 14' level. The only viable canopy present is growing on a section leaning toward the existing house. There is a pair of chestnut saplings (3.5" and 5.5") standing 12' ENE of this tree.

20. Horse Chestnut 25" DSH, leans markedly to the southwest as it rises, eventually reaching near 50' tall at 20' out from its base (Figure 10). The tree has a hollow base with an open decay column and atrophy on the south face up to the 5' level (Figures 11 and 12). Heavily inundated with ivy to past the halfway point. Poor condition. Stands 25' N of the #19.

21. Horse Chestnut that had been formed out of three stems all in the 25" DSH range. The first stem cracked off early in 2022. The second failed between late August and early November and knocked down a smaller tree to its SE (Figure 13). The last stem measured 25.5" DSH, leaned markedly to the west reaching 65' tall eventually (Figure 14). The lower scaffolds stretched 24' to the west and mid upper canopy was about 16' wide. It was deemed unstable and removed at the end of November. The base of the tree had significant decay throughout its base with severe included bark (Figure 15). Ten year old Ganoderma fruiting bodies were preset in space between the stems. It stood 15' NNE of the #20, 26' E of the fenceline, and about 45' E of the newly constructed 3450 house.

22. Dual stem Wild (Bitter) Cherry (*Prunus emarginata*) 6.5" and 7" DSH. 45' tall, 7' spreads and in below average condition. There is another pair 4" and 5" DSH, 20' tall growing close in to their southeast quadrant. They stand 35' NE of #21 and more than 40' W of the entry drive.

23. Tulip tree (*Liriodendron tulipifera*) 21" DSH, 65' tall, 14' radial spread in good condition. Tree is standing 28' W of the entry drive, 32' S of the small cross fence on the west side of the entrance, and 22' E of #22.

24. Vine Maple (*Acer circinatum*) multistem from the base (eleven stems 2-5" DSH), 20' tall with a 16' overall spread. Most of the stems leans slightly east away from the larger trees on its west side and come close to the entry drive. Base of tree is roughly 10' E of #23 and 12' W of the edge of the entry drive. Fair condition.

25. Douglas fir 28.5" DSH accounting for the ivy and kind of heavy bark. Tree reaches 95' tall and has a fairly full canopy coming down to within 20' of grade. Fair condition. Ivy is growing up past the halfway point on the column. Tree stands 28' S of the white line on 34<sup>th</sup> and 28' W of the entry drive.

26. Douglas fir 35" DSH accounting for heavy bark, 95' tall in fair health. Tree was swatted by the first section of the #21 chestnut that failed. Branches on its west side up to 35' were torn off.

27. Western Red Cedar (*Thuja plicata*) 16.5" DSH standing at the south side of the base of the #28 fir tree. The cedar was damaged at the 9' height and has an 8" subordinate spar coming off to the northeast quadrant from that point. The subordinate curls to vertical 7' out from the center column of the tree and reaches into the 30' range. The main stem goes up and runs into the larger fir near the 18' level, curls over and into it, crossing through what appears to be a wound point on the fir and continuing up to the 50' level. The main stem of the cedar is dead and all the live growth is on the subordinate. The cedar was struck by the end of the first failed chestnut stem which ripped off some of its dead branches.

28. Douglas fir 34.5" DSH, was damaged near the 80' mark and has several spars competing to become the dominant top from that level. Shows damage near the 20' level which may be from cedar rubbing into it but is likely an old topping cut for power line clearance. It has a subordinate spar growing out to the southwest from this area. The main stem of the fir is offset to the north. There is considerable deadwood present and some hangers. The tree is standing 19' S of the white line on 34<sup>th</sup> and pretty close to the middle of the north side of the lot. It appears to stand fully in the Bellevue ROW based on where the fence lines and property line markers are. There is a graveled parking area between the tree and the road.

29. Big Leaf maple (*Acer macrophyllum*) 20" DSH, 70' tall with a narrow canopy reaching 30' to the north, 26' to the south and less than 10' east and west. It stands 21' S of the white line and 34' E of the NW corner. Fair condition.

30. Western red cedar 33.5" DSH splitting the difference for the slope, 85' tall with below average new growth and color. It stands 30' S of the white line and 15' ESE of the #32 tree at the NW corner of the parcel.

31. Western red cedar 37.5" DSH, tree bifurcates east and west at 10' fully separating closer to 16' and has an active fracture plane. The west side stem reaches 85' tall and leans slightly to the west. The majority of its canopy is in the southwest quadrant. The east side stem is fairly vertical and reaches 75' tall with its canopy limited to the southeast quadrant. The limitations are mainly due to phototropism. Tree is in poor condition with noticeable die back in the upper third of the canopy and limited new growth and dull color in the rest.

32. Western Red cedar, dual stem from the base, 27" DSH on the south stem, 30.5" DSH on the north. Both reach 85' tall. The north side's entire canopy is in the northern hemisphere, comes down to within 12' of grade, and exhibits below average new growth and color. The south side stem's canopy is mainly concentrated in the southwest quadrant and shows below average condition.

There are three small flowering cherries that run east from the existing house along its parking area. They are all below significance in size and are in mixed conditions. There is a set of three hawthorns that stand in the narrow strip between the 16809 driveway and the east fence. They are also in mixed condition and below 6" in diameter.

**Methods:** Tree assessment is both an art and a science. To properly perform, an arborist must have an extensive background in biology, tree mechanics, and tree structure that is equal parts academic and field knowledge. It takes years of study to recognize and correctly diagnose the subtle signs trees exhibit before their failure, whether it be partial or total. The process begins with a visual inspection (visual tree assessment, VTA) which is followed up as necessary with soundings, core testing, and/or other detection means. Each tree is examined and evaluated according to several factors including species type, size, vigor, injuries present, root and grade disturbance, deadwood, location and extent of decay, stem taper, exposure, and targets that are at risk.

**Discussion:** The primary impact zone in this case incorporates the boundaries of the proposed new construction building pad, the new shared entry drive, and the regions within ten feet of those boundaries. Typically all trees within this area are removed as part of the demolition process because of impact concerns. The driveway primary impact will necessitate the removal of the #1-3, #8-10, and #14 trees on the subject property, the #4-6 trees in the ROW above the subject property, the #8 tree in the ROW above the 16827 property, and the #11-13 trees on the 16827 property. The #1289-1292, #1290a, and #1293 trees on the 16827 property will also be removed as the east side part of the entry drive is created.

The rough building pad region shown in Figure 16 incorporates the #19-21 trees which will be removed during the clearing and grading site preparation process. The design reflects the impact concerns of the large, north side evergreens and will likely be modified by the architect.

The secondary impact zone includes the trees which have root systems extending within the construction area. This region, the Critical Root Zone (CRZ), is a radial area extending out from the tree a distance equal to one foot per inch of diameter. For example, the #31 cedar, with a 37.5 inch DSH, would be expected to have a 37.5 foot radial CRZ.

Typically intrusion within the Critical Root Zone is strongly discouraged by the tree care industry. However trenching type incursion, that is excavation that will occur along only one sector of a tree's CRZ, can reach significantly into the root growth area without having a detrimental long term effect. What does have to be absolutely protected is a tree's Structural Root Plate (SRP). This radial area is again related to the diameter inches of the tree in question but not quite in a direct proportion as in the CRZ. Figure 17 below illustrates the relationship.

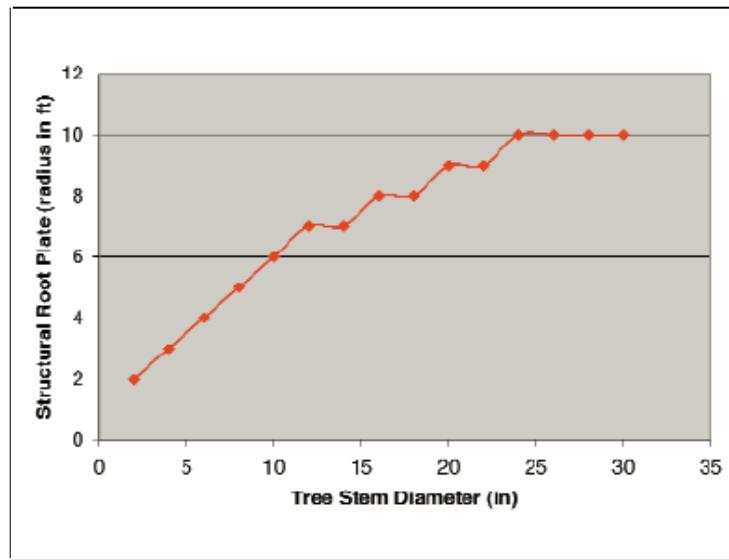


Figure 17. Size of the Structural Root Plate in relation to tree stem diameter. Note that the SRP levels off at 10' for any tree over 24" in diameter. (Coder 1996)

As currently laid out the project will not cause impact on the Structural Root Plate of any tree that is slated for retention. The #17 and #18 fir trees would have had close to 10' SRPs when the 2015 development started. That work impacted both significantly and has resulted in the atrophy of the west side of their structural roots.

The chart shown in Figure 24 below is used to determine what percentage of a tree's Critical Root Area will be affected by trenching type incursion. In general trees can sustain losses of up to 30% of their CRA without having long term detrimental results.

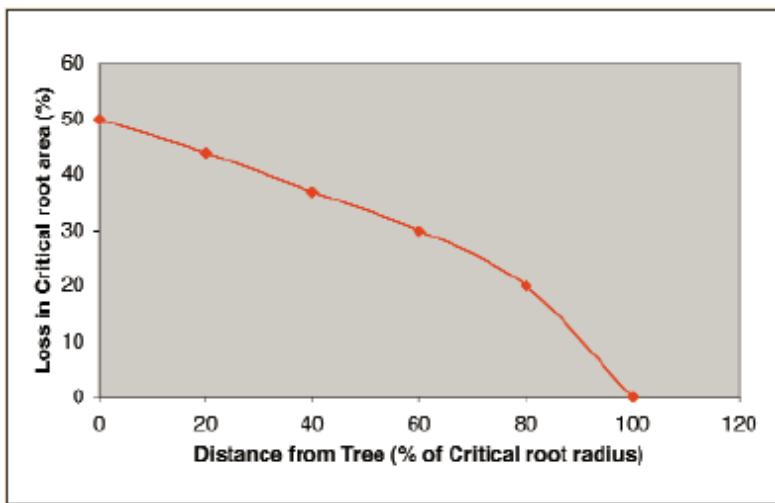


Figure 18. Chart giving the loss in critical root area as a function of the radial distance to the CRZ disturbance. (Coder 1996)

Using the #31 cedar again as the example, with the building pad grading cut being 35' from the tree's base (according to the plot plan drawn by the author in the Figure 16) and it having a 37.5" DSH, there will be impact at a linear distance equal to 93% of the cedar's CRZ (35'/37.5'). The chart in Figure 18 shows that this would roughly equate to a 5% loss of the cedar's Critical Root Area (CRA) if the cut continued all the way across the theoretical root spread of the tree.

However, this tree was already severely impacted by the 2015 development work on its west side. Aerial and Street View imagery from that time shows grading coming right up to, if not crossing, the property line (Figures 19 and 20). This resulted in impact at 21% CRZ and a loss of nearly 45% of its Critical Rooting Area.

The 2015 event impacted the #32 cedar at 19% CRZ and while the grading didn't cross its center line the tree was already limited in rooting space by 34<sup>th</sup> Street on its north side. It had to have lost close to 35% of its CRA. According to the chart in Figure 18 the #30 cedar would have lost roughly 32% of its rooting space due to the 2015 event.

The results of not having any protection, or protection enforcement by the City of Bellevue, are clearly seen in the rapid decline of the #31 and #32 cedars shown in Figures 19 and 21-23.

As shown, neither the #30 or #32 trees would lose additional rooting space during the proposed project.

There is a high likelihood that the collapse of the #21 chestnut is a result of the west side construction impact. The imagery shows its rapid decline (Figures 24-26). Using the standard methodologies for calculating the diameter of multistem trees the chestnut was 45" DSH and it was impacted at close to 44% CRZ for a 34% CRA loss according to the chart. It is likely that the impact was greater because of how the lawn on its east side would have created impedance for its roots and the open area to its west provided a ready source of water and nutrients. The sudden loss of resources allowed disease and fungal pathogens to rapidly overcome the tree.

The death of the #17 fir and the advanced decline of the #18 fir was directly caused by the construction impact on their west side and the loss of up to 45% of their rooting space.

The #26 fir has a 35" DSH and the north line of the building pad will cut through it 25' S of the base of the tree or at 71% CRZ. The table shows that this equates to a loss of near 25% CRA, within tolerance for the species.

The #23 tulip is impacted at 67% CRZ by the grading for the pad for a loss of near 28% of its rooting space but still just within acceptable limits.

The #22 cherries and the #24 vine maple may have roots just at or slightly crossing the grading line but they should not be impacted to any great degree.

**Recommendations:** The #1-14 trees along with the #1289-1292, #1290a, and #1293 trees on the 16827 property will be removed at project onset.

The #17 dead fir was reduced and left for habit as advised after the site visits.

It is highly recommended that the #31 cedar also be reduced significantly. The tree is rapidly dying and will end up becoming a risk issue for the west side house and the proposed one.

The #31 tree will not be counted for or against the tree ratios on the subject property because its death is directly attributable to the lack of protection during the west side construction event.

Likewise, the dying #18 fir will not be considered in the ratio calculations. The tree may recover but it is doubtful.

The laurel should be pruned back from the #15 Golden Chain at least 4' in order to allow it to thrive.

The #24 vine maple will likely have to be pruned back from the existing driveway to prevent construction vehicles from damaging it. It should be cut to at least 3' W of the drive and up to 14' vertical.

If the area along 34<sup>th</sup> is to be used for parking the dead and broken branches overhanging the area should be pruned out of the #28 fir tree.

After the vine maple is pruned protection fencing should be set up two feet west of the existing driveway starting at the north property line. The fencing should continue for 40' south and then turn west. It will run at an angle roughly following the line shown in Figure 16 making sure to come no closer than 14' from the #23 tulip and 25' from the #26 fir. It should end at the west fence around 34' S of the #31 cedar.

An arc of fence can be placed between the east and south fences 12' out from the #15 tree.

The only other tree to protect is the #16 alder and it is south of the existing house where no construction is proposed at the moment so it should be fine.

If any work is to be done within the fencing, a certified arborist will have to be on site to monitor the fence relocation and degree of root impact. If excavation begins to expose roots, even outside the fencing, systematic hand root pruning, rather than tearing and shearing by machine, will have to be done.

Once the actual location of the new house is established the remaining trees should be re-evaluated as to the degree of pruning/preventative maintenance which will be required.

A 6-8" deep layer of arbormulch should be laid down along the west side of the existing entry drive for at least 6' to cushion the roots present while the project is beginning.

Ideally, from the trees' standpoint, all the invasives (ivy, blackberry, holly, etc.) would be removed from the area to be enclosed by the protection fencing on the north side of the lot. It doesn't make much sense to lay down mulch as this area already has a fairly deep layer of duff present.

**Waiver of Liability** Because the science of tree risk assessment is constantly broadening its understanding, it cannot be said to be an exact science. Every tree is different and performing tree risk assessment is a continual learning process. Many variables beyond the control, or immediate knowledge, of the arborist involved may adversely affect a tree and cause its premature failure. Internal cracks and faults, undetectable root rot, unexposed construction damage, interior decay, and even nutrient deficiencies can be debilitating factors. Changes in circumstance and condition can also lead to a tree's rapid deterioration and resulting instability. All trees have a risk of failure. As they increase in stature and mass their risk of breakdown also increases, eventual failure is inevitable.

While every effort has been taken to provide the most thorough and accurate snapshot of the trees' health, it is just that, a snapshot, a frozen moment in time. These findings do not guarantee future safety nor are they predictions of imminent events. It is the responsibility of the property owner to adequately care for the tree(s) in question by utilizing the proper professionals and to schedule future assessments in a timely fashion.

This report and all attachments, enclosures, and references, are confidential and are for the use of the Garwin Long and his representatives only. It may not be reproduced, used in any way, or disseminated in any form without the prior consent of the clients concerned.

Anthony Moran, BS  
ISA Certified Arborist  
#PN-5847A



Figure 1. Aerial from 2013 showing the layout of the subject property and the surrounding area.



Figure 2. Google Street View from October 2015 looking west from West Lake Sammamish at the start of the development project south of the subject property.

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Figure 3. Aerial from 2019 showing the finished developments on the west and south side of the subject property.



Figure 4. Aerial view showing the approximate location of the trees listed in the description section (yellow numerals). The red lines indicate the position of the property lines but may not match surveyed lines exactly. The two letter terms stand for non-significant (ns) and not present (np). The 'np' tree was flattened by the second section of the #21 tree that failed.

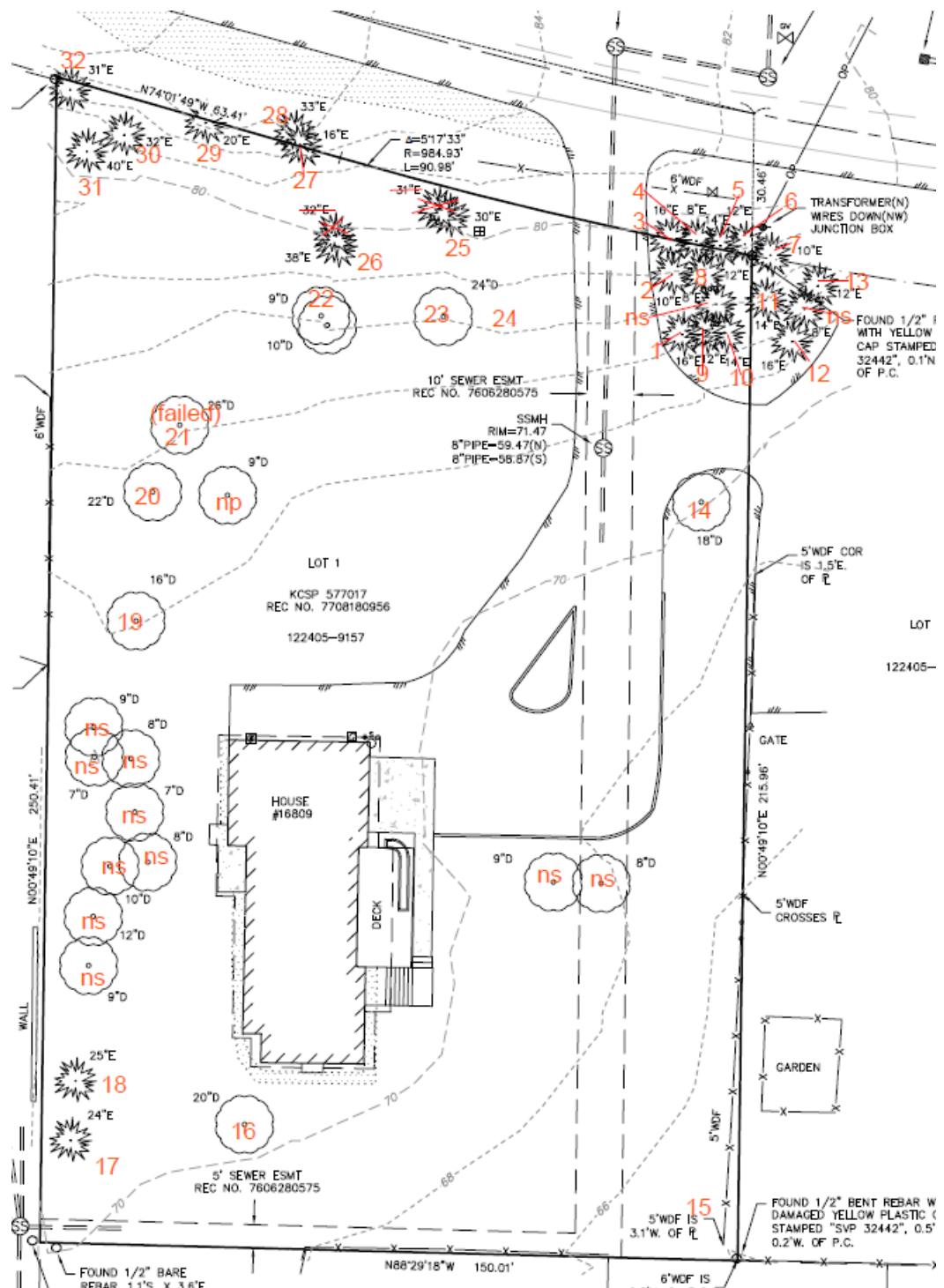


Figure 5. Excerpt from survey with the trees labeled. Note the #15 and #24 trees are only indicated by their numerals and may not be exactly placed.

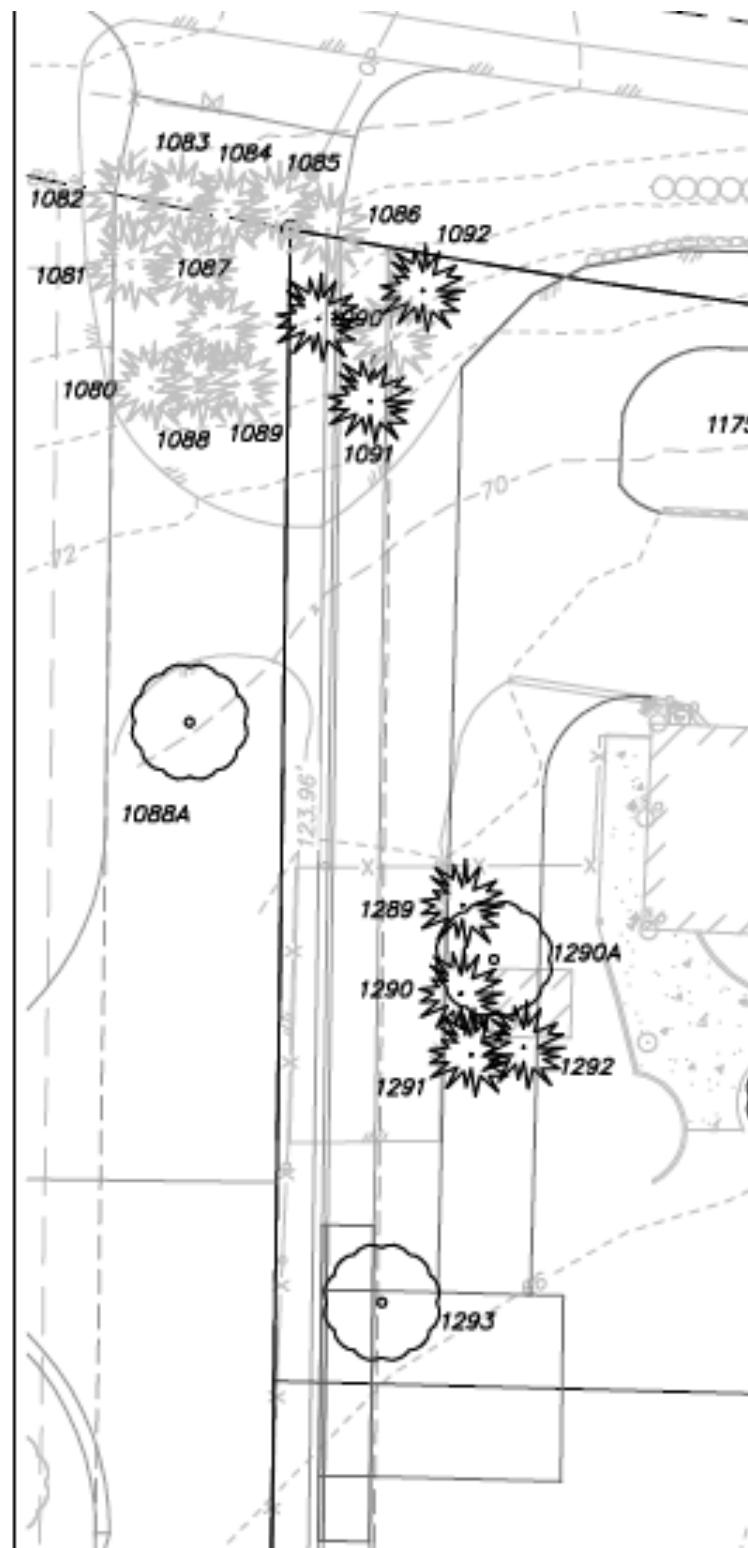


Figure 6. Excerpt from the survey of the 16827 property with the tree numbers shown for comparison.



Figure 7. Looking SSE at the placement of the #14 chestnut from the entry to the 16827 driveway.



Figure 8. Looking SE at the #15 Golden Chain standing in the NE corner of the lot. It is getting overrun by the laurel and blackberries.

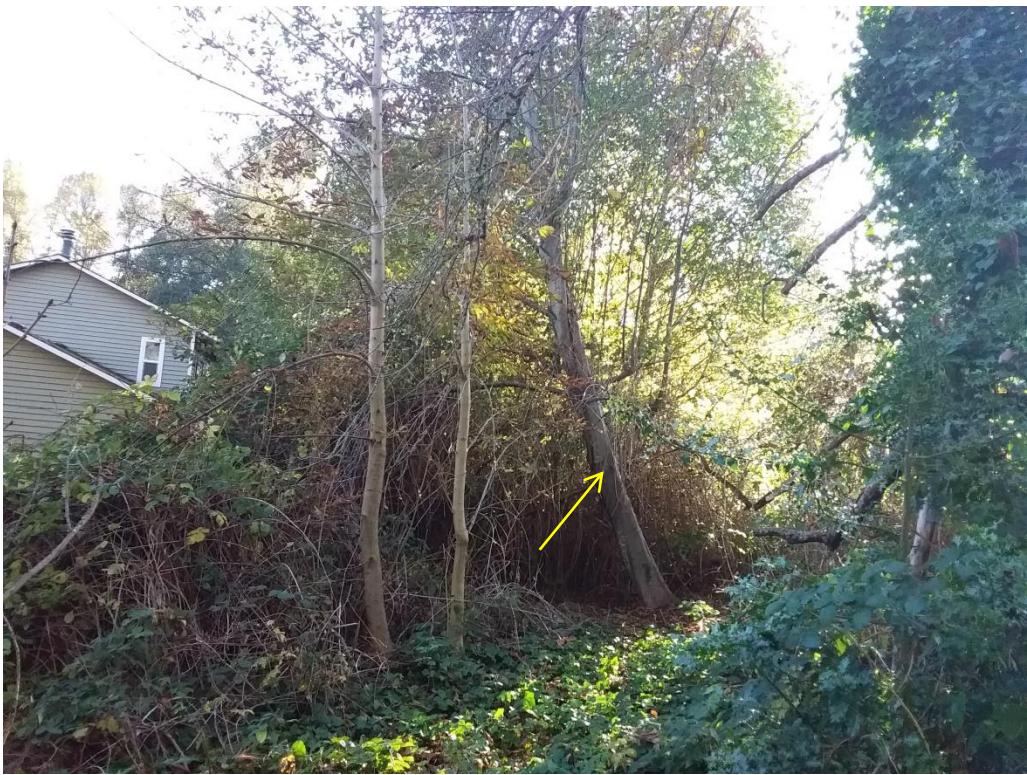


Figure 9. Looking SW at the #19 alder.

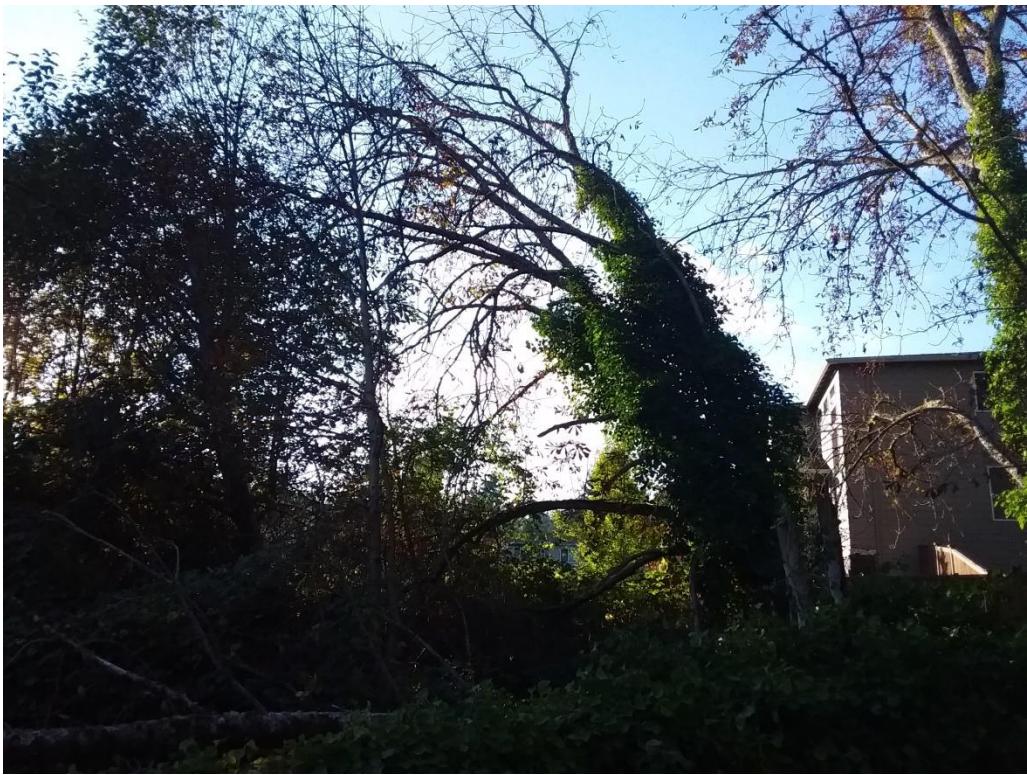


Figure 10. Looking west at the #20 chestnut showing its marked lean.



Figure 11. Hollow with decay at the base of the #20 tree.



Figure 12. Base of the #20 stem showing the atrophy starting from the hollow at the base. Large ivy vines are running up the area.

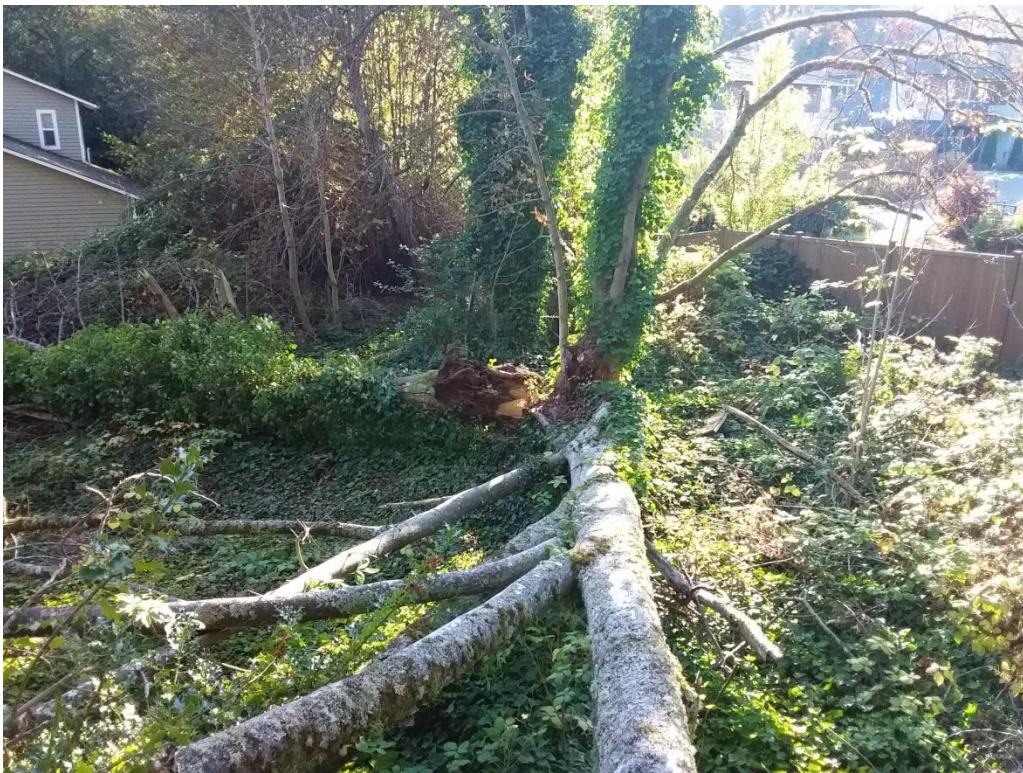


Figure 13. Looking SSW at the base of the #21 chestnut standing near the center of the first failed stem. The base of the second is in the center of the photo with its trunk reaching to the left.



Figure 14. The last section of the #21 tree at background center shown leaning toward the west side neighbor's house. The first failed section is stretching out to the right of the photo. The end (top) of the second failed section is in the foreground. The #20 tree is at the center left side.



Figure 15. Looking down into the center of the base of the #21 tree. Note the Ganoderma fruiting bodies.

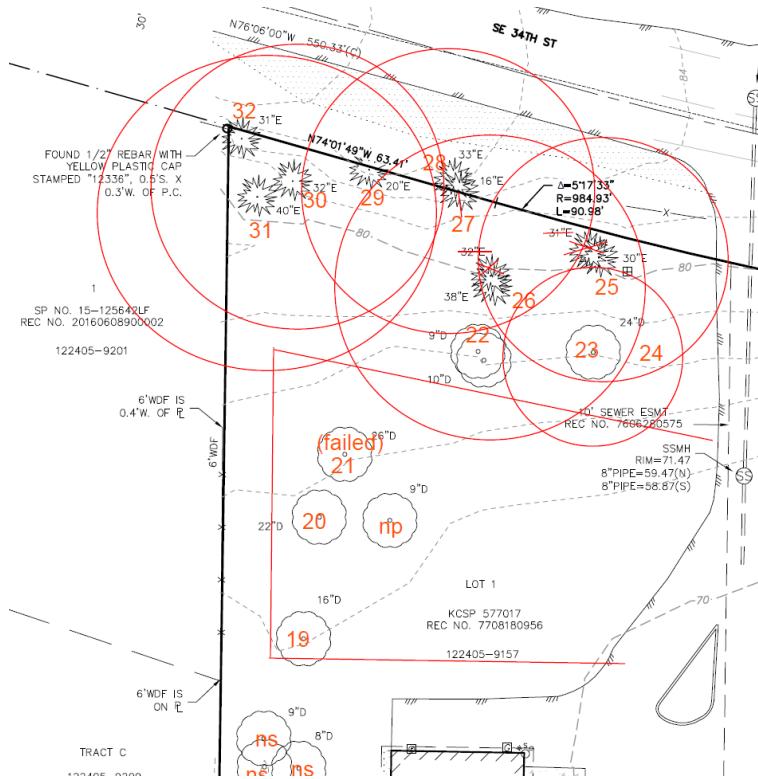


Figure 16. Excerpt from the survey showing CRZ circles for the north end trees and an outline of a building pad concept drawn by the author that creates an acceptable impact limit for them.



Figure 19. Google Street View image from 2015 showing clearing and grading on west side of the #31 and #32 cedars (left side of photo). Note dense, dark green canopies on the trees. There is no evidence of any tree protections present.



Figure 20. Aerial imagery from 2017 showing clearing and grading encroachment from the west side construction.



Figure 21. Street View image from 2017 showing conditions of cedars.



Figure 22. Street View from 2018 clearing showing the canopies thinning especially on the #31 cedar at the right edge of the stand.



Figure 23. Street View image from 2021 showing discoloration in the canopies of the #31 and #32 cedars and extreme thinning.



Figure 24. Street View imagery from 2017 showing the #21 chestnut. A young maple hides part of its canopy at the left side of the photo.



Figure 25. Street View imagery from August 2019 showing discoloration and thinning canopy on the #21 chestnut.



Figure 26. Street View image from September 2021 showing the #21 tree in obvious distress.