



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

Proposal Name: Quigley (9818) Short Plat

Proposal Address: 9818 NE 24th Street

Proposal Description: Application for Preliminary Short Plat Approval to subdivide a 0.42 acre site into 2 single family building lots, located in the R-4 land use district.

File Number: 13-104530-LN

Applicant: Thom Gebhard
Countrycraft Homes, LLC

Decisions Included: Preliminary Short Plat (Process II)

Planner: Sally Nichols, Associate Planner

State Environmental Policy Act Threshold Determination: Exempt

Department Decision: Approval with Conditions

Sally Nichols, Associate Planner
Development Services Department

Application Date: January 18, 2013
Notice of Application: February 21, 2013
Minimum Comment Period: March 7, 2013 (14 days)
Decision Publication Date: April 4, 2013
Appeal Deadline: April 18, 2013

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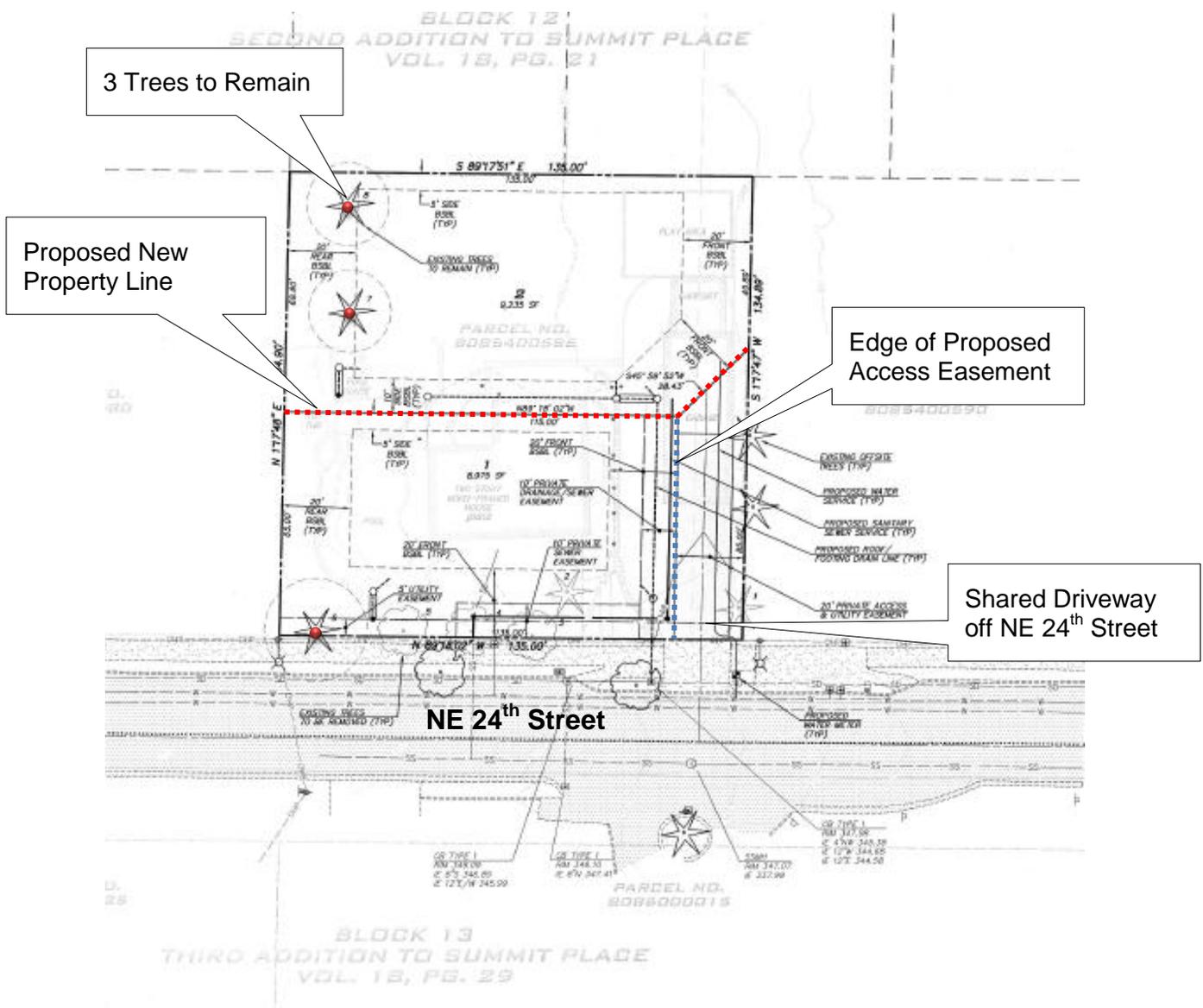
Attachments:

Project Drawings
Tree Retention BMP's

I. DESCRIPTION OF PROPOSAL

The applicant is proposing to short plat an existing 18,210 square foot (approximately 0.42 acres) lot into two (2) single-family building lots. The site contains an existing single-family residence, detached garage, and swimming pool; all of which will be demolished as a result of this short plat proposal. Access to the two new lots will be provided via one shared private driveway easement that will necessitate only one curb cut off NE 24th Street. Each new home (not part of this short plat approval) will have a private driveway off this shared roadway. The applicant proposes to retain approximately 36% of 162 diameter inches of significant trees on the site.

SITE PLAN



II. SITE DESCRIPTION AND CONTEXT

The project site currently is comprised of one, single-family lot accessed via one driveway curb cut off NE 24th Street - a collector arterial street. The public right-of-way has been improved by the City of Bellevue to include a public sidewalk, street trees, and a planting strip along the side of the roadway.

The proposal site is 18,210 square feet (0.42 acres) within the North Bellevue Subarea. The lot is occupied by one 2,500 square foot single family home, a detached multi-car garage, a children's play area, and a swimming pool. There are eight significant trees on the site for a total of 162 diameter inches. The site is generally level and as defined by Land Use Code (LUC) 20.25H, there are no critical or protected areas.

AERIAL PHOTOGRAPH



PROPOSAL PROPERTY LOOKING NORTHWEST FROM NE 24TH STREET



III. CONSISTENCY WITH ZONING and LAND USE CODE REQUIREMENTS

A. Zoning

The two lots proposed with this short plat application are allowed in the R-4 land use district. Refer to discussion of dimensional requirements in Table 1 of Section I.B below.

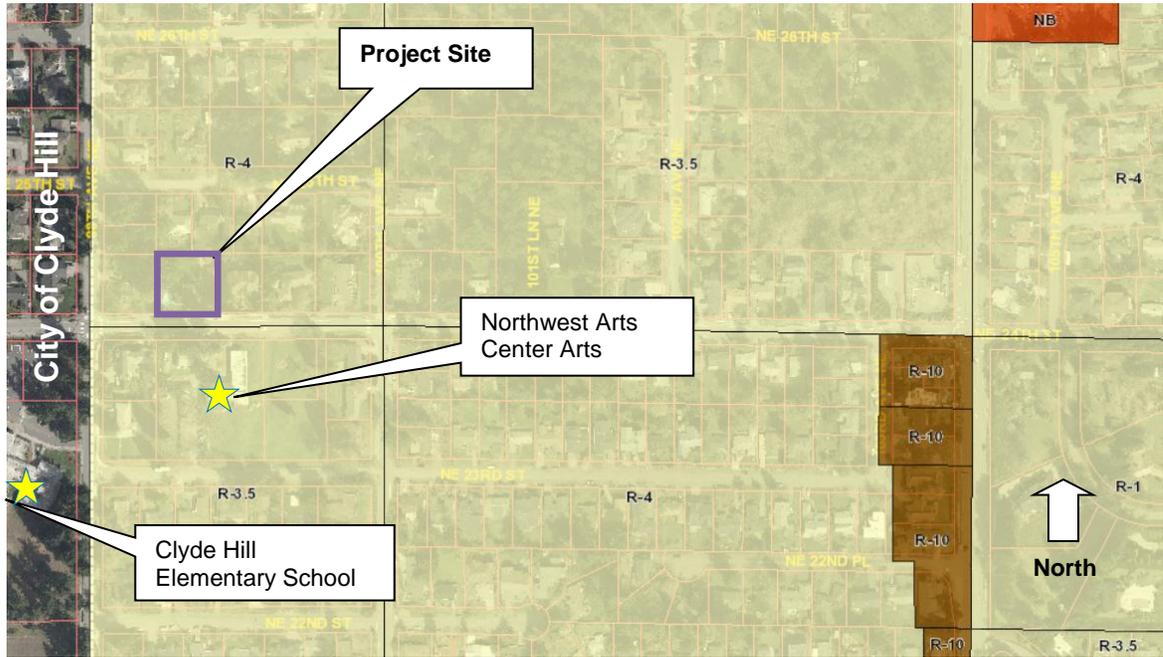
The surrounding neighborhoods are entirely within single-family residential land use districts and predominantly consist of single-family homes. Exceptions are the Northwest Arts Center, which is directly south across NE 24th Street, and Clyde Hill Elementary School, which is less than a block away to the southwest.

Adjacent Land Uses:

East, West and North: Existing single family homes in the R-4 land use district. In addition, the jurisdictional border between the City of Bellevue and the City of Clyde Hill lies directly to the west along the center line of 98th Avenue NE.

South (across NE 24th Street): Directly to the south are single-family homes and the Northwest Arts Center in the R-3.5 land use district. The Northwest Arts Center is a City of Bellevue-owned community resource which hosts many City programs and is managed by the Parks Department.

ZONING MAP



B. Consistency with Land Use Code Requirements

TABLE 1: DIMENSIONAL REQUIREMENTS

BASIC INFORMATION		
Zoning District	R-4 Comprehensive Plan Designation: Single-Family – High Residential (SF-H)	
Gross Site Area	18,210 SF	
Item	Required/Allowed	Proposed
Minimum Lot Area	8,500 SF per lot LUC 20.20.010	Lot 1: 8,975 SF Lot 2: 9,235 SF Meets LUC requirement
Minimum Lot Width	65 Feet	Lot 1: 65 Feet (approx.) Lot 2: 69.9 Feet (approx.)
Minimum Lot Depth	80 Feet LUC 20.20.010	Lot 1: 135 Feet (approx.) Lot 2: 135 Feet (approx.) Meets LUC requirements

Item	Required/Allowed	Proposed
Building Setbacks Front Yard Rear Yard Min. Side Yard 2 Side Yards	20 Feet 20 Feet 5 Feet 15 Feet LUC 20.20.010	Both Lots: 20 Feet 20 Feet 5 Feet 15 Feet (5 ft. + 10 ft.) Meets LUC requirements
Access Easement Setback	10 Feet from any access easement unless a greater dimension is specified LUC 20.20.010 Note (17)	20 Feet Meets LUC requirements
Tree Retention	Required: 30% of 162 diameter Inches = 49 diameter Inches Minimum LUC 20.20.900	58 diameter Inches Retained = 36 % Retained Meets LUC requirements <u>Refer to Condition of Approval regarding tree protection and tree retention/final short plat in Section IX of this report.</u>

IV. STATE ENVIRONMENTAL POLICY ACT (SEPA)

There are no critical areas on this proposal site. Short Plats not containing Critical Areas are exempt from SEPA review pursuant to WAC 197-11-800(6)(a), BCC 22.02.032. Thus, the project proposal is **EXEMPT**.

V. SUMMARY OF TECHNICAL REVIEWS

A. Utilities Review

The Utilities Department has reviewed the submitted plans and has approved the Preliminary Short Plat proposal only. There are no implied approvals of the utility engineering. Changes to the site layout may be required to accommodate the utilities. All water, sewer & storm drainage design review, plan approval and field inspection shall be done through the water application process, side sewer permit(s) and or storm drainage connection permits.

Refer to Condition of Approval regarding utilities in Section IX of this report.

B. Fire Department Review

The fire department has reviewed the submitted plans and has approved the Preliminary Short Plat proposal without conditions.

C. Clearing and Grading Department

The Clearing and Grading has reviewed the submitted plans and has approved the preliminary short plat without conditions. A Clearing and Grading Permit (GE Type) is required for the construction of the road, driveways and the utilities of this short plat.

D. 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 provide all transportation improvements at the developer's expense (BCC 14.60.110) or provide an acceptable financial assurance device equivalent to 150% of the cost of unfinished improvements. **Refer to Conditions of Approval regarding engineering plans and infrastructure improvements in Section IX of this report.**

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.

Site Access

Access to Lots 1 and 2 will be from a joint use driveway connecting to NE 24th Street at the existing driveway cut for the property of 9818 NE 24th Street. No other access connection to city right-of-way is authorized.

The existing driveway cut is approximately 20 feet wide. This is acceptable to the Transportation Department contingent upon approval from the Fire Department. The existing driveway apron is acceptable to the Transportation Department as well.

New addressing for this short plat is as follows:

Lot 1 (front lot): 9802 NE 24th Street
Lot 2 (back lot): 9818 NE 24th Street

The applicant will be responsible for an address placard to identify the back lot from NE 24th Street. **Refer to Conditions of Approval regarding sight distance and access design and maintenance in Section IX of this report.**

Street Frontage Improvements

Existing street frontage adjacent to the project site is adequate and acceptable to the Transportation in its present condition. Therefore, no major frontage improvements are required at this time. Minor improvements will be required to mitigate for construction impacts and appropriate address signing or as otherwise needed at the discretion of the Transportation Inspector.

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 Condition of Approval regarding the Right of Way Use Permit and off-street parking in Section IX 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. Adjacent to the project site, NE 24th Street is classified as "No-Cut" street. Minimum pavement restoration for this type of classification is a full grind and overlay pavement restoration extending 50 feet from the center of the street cut in both directions. Exact pavement restoration specifications will be listed in the Right of Way Permit. **Refer to Condition of Approval regarding pavement restoration in Section IX 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 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 small increase in traffic from this short plat (one new p.m. peak hour trip, ten daily trips) and adequate capacity of NE 24th Street to accommodate said trips, traffic impacts from this short plat will be negligible. Sight distance, driveway grade and the access location on NE 24th Street have been designed to comply (as much as possible) with current transportation standards.

VI. PUBLIC COMMENT

The City initially notified the public of this proposal on February 21, 2013 with mailed notice and publication in the Weekly Permit Bulletin. A public information sign was installed on the site the same day. Three written comments were received regarding the proposal (copies of the public comments are in the project file at City Hall) at the time of this writing. The following is a summary of the main issue identified, along with the City's response.

1. ***Issue/Question:*** *There is concern regarding the protection of the neighboring properties and the impact of this development on the neighbors.*

Response: City of Bellevue development codes are in place to protect surrounding properties from impacts associated with development. For example, during the preliminary short plat review, the applicant must identify all applicable dimensional requirements including the setbacks and lot dimensions, for each lot to assure that each lot is of legal shape, size and distance from adjacent properties. The setbacks and configurations of the two proposed lots are shown on the Preliminary Short Plat drawing attached to this report. In addition, a minimum of 30% of the total diameter inches of the existing trees on site must be retained and protected during construction. The proposed short plat will retain 36% of the existing trees.

Approval of the preliminary short plat and final short plat does not take into consideration the design of any future buildings. When the single family homes submit plans for permits, the structures will be required to comply with the dimensional requirements, including lot coverage by structure and maximum total impervious surface, for the R-4 land use district. Specific construction permits for new homes or home improvements would be subject to the construction codes in place at the time of application.

During construction, construction hours and noise are regulated by Bellevue City Code (BCC) 9.18. In addition, to control construction traffic (among other things) the applicant is required to obtain a Right of Way Use Permit.

Refer to Section III and Conditions of Approval regarding construction noise, Right of Way Use Permit, tree protection and tree retention in Section IX of this report.

2. **Issue/Question:** *There is concern that this proposal will add to the existing traffic congestion on NE 24th Street.*

Response: The Quigley Short Plat will create 1 new p.m. peak hour trip and 10 new daily trips (spread within a 24 hour period). Due to this low amount of new trip generation and the existing capacity on NE 24th Street, the Transportation Department cannot deny this project based on new trip generation. To address concerns regarding existing traffic conditions on NE 24th Street please contact:

- Karen Gonzalez (Manager of Neighborhood Services Group) to initiate studies for traffic calming (reducing speeds via roundabouts or other means).
425-452-4598; kgonzalez@bellevuewa.gov
- Hillary Stibbard: (City Traffic Engineer) to initiate studies for 4 way stop signs.
425-452-4357 hstibbard@bellevuewa.gov

VII. DECISION CRITERIA:

Land Use Code 20.45B.130B 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 and associated out-buildings will be demolished. Only one curb cut will be allowed on NE 24th Street. **Refer to Conditions of Approval regarding infrastructure improvements, access design and maintenance, and existing structures to demolish in Section IX 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. There are no critical areas on this site that require further protection. **Refer to Conditions of Approval regarding tree protection, tree assessment and tree retention/short plat in Section IX 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.

Development Standards

Finding: As conditioned, the proposal complies with the Land Use Code requirements for R-4 land use district, the Utility Code and the City of Bellevue Development Standards.

Land Use Code Requirements:

A. Dimensional Requirements: *Refer to Section III.A. of this report for dimensional requirements.*

Response: All of the lots shown can be developed in accordance with the City of Bellevue Land Use Code requirements, including the R-4 land use district dimensional requirements.

B. Significant Tree Preservation: *Tree preservation requirements pursuant to LUC Section 20.20.900.D require the retention of 15% of significant trees on the site. In order to meet the 30% minimum retention requirement, the project must retain a minimum of 49 diameter inches of the 162 diameter inches of the existing significant trees.*

Response: The applicant proposes to retain 36% of the significant trees onsite. This satisfies the minimum 30% tree retention requirements. **Refer to**

Conditions of Approval regarding tree protection and tree retention on the final plat in Section IX of this report.

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

Finding: The site is located within the North Bellevue subarea. The Comprehensive Plan specifies Single-Family Urban Residential development for this property, which is consistent with the R-4 land use designation. The proposal complies with applicable Comprehensive Plan policies City-wide and for this Subarea, including the following:

Land Use Policy LU-3: *Accommodate growth targets of 10,117 additional households and 40,000 additional jobs for the 2001-2022 period. These targets represent the city's commitment to develop the zoning and infrastructure to accommodate this level of growth; they are not a commitment that the market will deliver these numbers.*

Finding: This short plat will provide lots for two future single family residential units. These homes will help to meet Bellevue's share of the regionally adopted demand forecasts for residential uses.

Land Use Policy LU-4: *Encourage new residential development to achieve a substantial portion of the maximum density allowed on the net buildable acreage.*

Finding: The two lots proposed as a result of this short plat are the maximum number of lots allowed on an R-4 lot of this size.

Housing Policy HO-17: *Encourage infill development on vacant or under-utilized site that have adequate urban services and ensure that the infill is compatible with the surrounding neighborhoods.*

Finding: This project will eventually add two new single family homes which are, by use type, compatible with the surrounding single family neighborhoods. The proposal provides development on an infill or under-utilized site with adequate urban services and meets the Housing Element Neighborhood Quality & Vitality goal of ensuring compatible housing and environmentally sensitive features by preserving three healthy, significant trees on-site.

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 (proposed Lots 1 and 2) can reasonably be developed to current R-4 dimensional standards without requiring a variance. 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 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, necessary sidewalk easements 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 infrastructure improvements and access design and maintenance in Section IX 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** the 9818 (Quigley) Preliminary Short Plat **WITH CONDITIONS**.

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 approval unless the applicant files for an extension at least 30 days prior to the expiration and the extension is granted pursuant to LUC 20.45B.150 and 160.

IX. CONDITIONS OF APPROVAL:

The following conditions are imposed under 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:

Applicable Codes, Standards & Ordinances

Clearing & Grading Code – BCC 23.76
Construction Codes – BCC Title 23
Fire Code – BCC 23.11
Land Use Code – BCC Title 20
Noise Control – BCC 9.18
Sign Code – BCC Title 22
Transportation Develop. Code – BCC 14.60
Traffic Standards Code 14.10
Right-of-Way Use Code 14.30
Utility Code – BCC Title 24

Contact Person

Janney Gwo, (425) 452-6190
Building Division, (425) 452-6864
Adrian Jones, (425) 452-6032
Sally Nichols, (425) 452-2727
Sally Nichols, (425) 452-2727
Sally Nichols, (425) 452-2727
Ray Godinez, (425) 452-7915
Ray Godinez, (425) 452-7915
Tim Stever, (425) 452-4294
Don Rust, (425) 452-4856

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: Sally Nichols, 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 the 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: Sally Nichols, Land Use

3. Utilities

The Utilities Department has approved the Preliminary Short Plat proposal only. There are no implied approvals of the utility engineering. Changes to the site layout may be required to accommodate the utilities. All water, sewer & storm drainage design review, plan approval and field inspection shall be done through the water application process, side sewer permit(s) and or storm drainage connection permits.

AUTHORITY: BCC 24.02, 24.04, 24.06
REVIEWER: Don Rust, Utilities

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

1. 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: Tim Stever, Right-of-Way/Transportation

2. 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: Tim Stever, Right-of-Way/Transportation

3. Engineering Plans

Due to the minimum amount of transportation-related improvements associated with this short plat the Transportation will not require engineering plans (construction plans). If other reviewing departments require construction plans, then the plans should show:

- a) Site Specific Items:
 - i) Joint use driveway construction onsite. Show alignment, pavement depths, etc.
- b) Miscellaneous:
 - i) Landings on sloping approaches are not to exceed a 10% slope for a distance of 20 feet approaching the back edge of sidewalks. Driveway grades must be designed to prevent vehicles from bottoming out due to abrupt changes in grade.
 - ii) The maximum cross grade of a street at the street end shall be 8%.
 - iii) Vehicle and pedestrian sight distance must be provided per BCC 14.60.240 and 14.60.241.

AUTHORITY: Bellevue City Code 14.60; Transportation Department Design Manual
REVIEWER: Ray Godinez, Transportation

4. Sight Distance

If necessary to meet the sight distance requirements of BCC 14.60.240 and standard drawing TE-1, existing vegetation at the access location on NE 24th 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: Ray Godinez, Transportation

5. Pavement Restoration

Adjacent to the project site, NE 24th Street is classified as "No-Cut" street. Minimum pavement restoration for this type of classification is a full grind and overlay pavement restoration extending 50 feet from the center of the street cut in both

directions. Exact pavement restoration specifications will be listed in the right of way permit issued for this permit.

AUTHORITY: Bellevue City Code 14.60.250 and Design Manual Design Standard # 21

REVIEWER: Tim Stever, Right-of-Way/Transportation Department

6. Tree Protection

To mitigate adverse impacts during all construction to the trees to be retained and trees on adjacent properties, the applicant must comply with the City of Bellevue **Tree Protection BMP's** (attached to this staff report), which includes the following:

- a) Clearing limits or Tree Protection Zone (TPZ) shall be established for retained trees within the developed portion of the site ***outside of the drip lines***. The TPZ shall extend from the tree trunk 1.5 feet for every inch of trunk diameter. Six-foot chain link fencing with driven posts, or an approved alternative, shall be installed at the clearing limits (outside of the driplines) prior to initiation of any clearing and grading.
- b) No excavation or clearing shall be performed within the TPZ of retained trees except as specifically approved on plans. All such work shall be done by hand to avoid damage to roots and shall be done under the supervision of an arborist approved by the City.
- c) Protection must also be provided for any trees on adjacent properties. Protection shall be provided around the portion of the driplines that overhang the proposal property.

AUTHORITY: Bellevue City Code 23.76.060

REVIEWER: Sally Nichols, Land Use

C. PRIOR TO FINAL SHORT PLAT APPROVAL:

1. Existing Structures to Demolish

The applicant shall remove the existing house and garage 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: Sally Nichols, Land Use

2. Infrastructure Improvements

All street frontage and infrastructure improvements shown in the final engineering plans or required by city codes and standards must be either completed prior to approval of the final short plat or provided for with a financial assurance device. Completion of the top lift and all other transportation infrastructure items prior to completion of the homes associated with the development is allowed.

Land Use Code Section 20.40.490 allows a developer to obtain final short plat approval prior to finishing improvements with provision of an acceptable financial assurance device equivalent to 150% of the cost of unfinished infrastructure improvements. Provision of such an assurance device requires completion of the

improvements by the developer within two years of final short plat approval. Installation of improvements that would negatively affect safety if left unfinished may not be delayed through use of a financial assurance device. Partial reductions of the financial assurance device will not be approved except in special circumstances, determined in advance, such as phased projects.

Improvements must be approved by the Transportation Department inspector before they are deemed complete. At completion of all transportation infrastructure items, the developer must provide a one year maintenance assurance device equivalent to 20% of the value of the transportation infrastructure improvements, dating from the acceptance of the improvements.

AUTHORITY: Bellevue City Code 14.60.100, 110, 130, 150, 170, 190, 210, 240, 241; LUC 20.40.490
Transportation Department Design Manual Sections 3, 4, 5, 7, 11, 14, 19
REVIEWER: Ray Godinez, Transportation

3. Access Design and Maintenance

The final Subdivision map must include a note that specifies that the owners of lots served by the joint use driveway are equally responsible for maintenance and repair. Also, the final Subdivision map must include a note that specifies that the joint use driveway 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: Ray Godinez, Transportation

4. Tree Retention/Final Short Plat

Existing trees contribute substantially to the effectiveness and health of this system. The City of Bellevue urges the applicant to save as many trees as possible. The final short plat shall portray, as submitted, all trees identified to remain on the preliminary short plat drawings. A Tree Preservation Plan that portrays the drip-line, the diameter size, and common name of each significant tree to be retained **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.”

AUTHORITY: Land Use Code 20.20.900.D
REVIEWER: Sally Nichols, Land Use

ATTACHMENTS: Project Drawings
Tree Retention BMP's

Tree Protection BMPs

Purpose

This section identifies management practices to employ at construction sites to guarantee successful tree and vegetation protection before, during, and through a lifetime of site use and maintenance. The City of Bellevue regulates and manages tree retention during development through the Land Use Code and the Clearing and Grading Code. Trees and vegetation are preserved for several reasons:

- To sustain both the function and value of vegetation assets
- To enhance public safety by carefully maintaining the health of onsite vegetation and to reduce liability
- To contain costs associated with site restoration
- To reduce or avoid soil compaction and degradation
- To avoid physical injury to existing trees
- To avoid root injury to trees and other vegetation
- To protect soils and hydraulic integrity of the entire site
- To protect existing irrigation, utilities and underground drainage
- To prevent sediment-laden and/or polluted runoff from entering drainage systems and water bodies (streams, wetlands, lakes).

Definitions

Critical Root Zone (CRZ) - The circular area around the base of a tree calculated as the distance to the furthest extent to the tree's dripline.

Development Project - Any construction activity including demolition, grading, drainage improvements, new construction of main house or accessory structures, added square footage to existing main house or accessory structures, site preparation and landscaping.

Diameter at Breast Height (DBH) - The diameter of the tree trunk at four and one-half feet (or 54 inches) above natural grade level. The diameter may be calculated by using the following formula: $DBH = \text{circumference at 4.5-feet} \times 3.14$. To determine the DBH of multi-trunk trees or measuring trees on slopes, consult the current Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.

Drip line - The circular area around the base of a tree measured by the furthest lateral extent of the foliage.

Project Arborist - A qualified professional who is qualified to evaluate trees such as a Certified Arborist, a Registered Consulting Arborist, a Licensed Landscape Architect or a Certified Forester. The project arborist is responsible for decisions related to vegetation on site before, during and after construction.

Project Manager - The person assigned to the construction project by the department or the contractor who is responsible for managing the overall project. Project management duties include schedule, budget, and related logistics, including construction site management.

Tree Protection Site Plan (Base Map) - A set of drawings that show existing site conditions and proposed landscape improvements, including trees to be removed, relocated or to be retained. Site plans shall include the following minimum information that may affect trees:

A. Surveyed location, species, size, drip line area of significant (including trees located on neighboring property that overhang the project site) and Street Trees within 30-feet of the project site.

B. Paving, concrete, trenching or grade change located within the **Tree Protection Zone (TPZ)**.

C. Existing and proposed utility pathways.

D. Surface and subsurface drainage and aeration systems to be used.

E. Walls, tree wells, retaining walls and grade change barriers, both temporary and permanent.

F. Landscaping, irrigation and lighting within TPZ of trees.

G. All of the final approved site plan sheets shall reference tree protection instructions.

Significant Tree - A healthy evergreen or deciduous tree, eight inches in diameter or greater at four feet above existing grade. (Land Use Code 20.50.046)

Street Tree - means any tree growing within the street right-of-way, outside of private property.

Tree Appraisal - means a method of determining the monetary value of a tree as it relates to the real estate value of the property, neighborhood, or community.

Tree Protection Plan (TPP) - A plan prepared by a certified arborist that outlines measures to protect and preserve trees.

Tree Protection Zone (TPZ) - The circular area around a tree calculated as 1.5 feet of radius for every inch of DBH, or no less than 6 feet, whichever is greater that is required to be protected with a fenced enclosure.

Tree Protection Fencing - A temporary enclosure erected around a tree to be protected at the boundary of the tree protection zone. Tree protection fencing should consist of six 6 foot high chain link fence, mounted on two inch diameter metal posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing.

Warning Sign - A warning sign shall be prominently displayed on each fence. The sign shall be a minimum of 8.5 x 11-inches and clearly state: “WARNING – Tree Protection Zone - This fence shall not be removed and any injury to this or these trees is subject to penalty according to BCC 14.06.100.”

Conditions of Use

Trees and vegetation can be impacted during construction in many ways and often times the damage is not seen for several months or even years after the construction is completed. Proper tree protection can benefit not only the tree by reducing stress during construction but also the developer and property owner by reducing long term costs associated with future maintenance. The cost of removing a tree killed by construction after development is usually greater than the cost of protecting the tree during construction.

Common types of tree injuries that occur during construction may include:

- Mechanical injury to roots, trunk or branches
- Compaction of soil by storing of materials or equipment, which degrades the functioning of roots, inhibits the development of new roots and restricts drainage.
- Changes in existing grade which can cut or suffocate roots
- Alteration of the water table - either raising or lowering
- Changes in drainage patterns that promotes erosion or excessive accumulation of runoff
- Sterile soil conditions associated with stripping off topsoil
- Damage to roots from dumping of liquids or rinsing of construction equipment

Not all damage occurs to trees and vegetation during the actual construction of buildings or structures. Trees are often damage during the landscaping phase after the heavy equipment and workers have left. Installing irrigation, applying topsoil and turf installation also causes damage to trees. All construction-related impacts can produce long-term maintenance problems that can be avoided by following the BMPs set forth in the remainder of this chapter.

Planning & Permitting Phase

- Inventory and evaluate all existing trees on the site and trees immediately adjacent with driplines or expected root zones extending onto the project site. The inventory and evaluation shall include, but not be limited to the following information:

- Tree species
 - Tree size in DBH and canopy spread
 - Tree condition or observed defects
 - Tree numbers that are included in an inventory table
 - A calculation of the total diameter inches of significant trees on the site along with an indication of the interior or perimeter location of the tree, if applicable to the proposed development type and tree retention.
 - Tree map showing the location of the existing significant trees on the site with numbers corresponding to the tree inventory table.
- **Submit a Tree Protection Plan (TPP)** prepared by a Project Arborist that includes the following information:
 - Location of and description all significant trees that will remain on the project site per LUC 20.20.900
 - Illustration of the Tree Protection Zone (TPZ) for each tree is a radius of 1.5 feet for every inch of DBH or a minimum of 6 feet, whichever is greater.
 - The TPZ will regularly exceed the Critical Root Zone (CRZ), which is the outer edge of the tree's canopy, or drip line. The reduction of TPZ closer to the TPZ must be accompanied by mitigating measures and be approved in writing by the City of Bellevue. The TPZ may not be smaller than the CRZ.
 - Description of expected tree protection techniques that will be used on the project as per the Land Use Code and the Clearing and Grading Code All tree removal and pruning needed to make room for future structures and construction equipment should also be drawn on the base map
 - A timetable for project meetings with the Project Team including a pre-construction meeting and the schedule for the Project Arborist monitoring.
 - Calculation of appraisal amounts to be collected by the City as an assurance device in the form of a deposit equal to the tree appraisal value of all protected trees as determined under the methods described in the Guide for Establishing Value of Trees and Other Plants, published by the International Society of Arboriculture.

Pre-Construction Site Preparation Phase

- Stage equipment away from trees and vegetation to be retained so that existing plants and their roots are protected.
- Fence off with chain link or construction fencing all entry and exit routes. When planning routes, avoid utility access corridors.

- Protect irrigation and drainage systems shall from damage unless plans call for renovation of such systems.
- Stake and/or flag clearing limits and tree protection to be verified and approved by the City's clearing and grading inspector at the required preconstruction meeting.
- Project Arborist will supervise and verify the following tree protection measures are in place and comply with the approved TPP:
 - A 6" layer of coarse mulch or woodchips is to be placed beneath the Tree Protection Zone (TPZ) of the protected trees. Mulch is to be kept 12" from the trunk.
 - Trees that have been identified in the site inventory as posing a health or safety risk may be removed or pruned by no more than one-third, subject to approval of the required permit by the City of Bellevue. Pruning of existing limbs and roots shall occur under the direction of the Project Arborist.
 - Tree Protection Fencing of 6' chain link fencing shall be installed around the TPZ of protected tree(s). The fencing can be moved within the TPZ if authorized by the Clearing and Grading Inspector and the Project Arborist but not closer than 2' from the trunk of any tree. Fence posts shall be 1.5" in diameter and are to be driven 2' into the ground. The distance between posts shall not be more than 10'.
 - Tree protection fencing shall have a warning signs prominently installed on each fence at 20-foot intervals. The sign shall be a minimum 8.5-inches x 11-inches and clearly state: "WARNING - Tree Protection Zone"
 - Movable barriers of chain link fencing secured to cement blocks may be substituted for "fixed" fencing if the Project Arborist and City Staff agree that the fencing will have to be moved to accommodate certain phases of construction. The builder may not move the fence without authorization from the Project Arborist and City Staff.
 - Should temporary access into the TPZ be approved, an additional 3" layer of gravel and 3/4" plywood shall be placed over the CRZ.

Construction Phase

During the Construction phase, ensure the TPP is being followed and report any conflicts or deviations to the City of Bellevue Clearing and Grading Inspector. Monitor construction activities that require encroachment within the TPZ, such as grading or trenching.

Avoid the following conditions:

1. Allowing run off or spillage of damaging materials into the approved TPZ.

2. Storing construction materials or portable toilets, stockpiling of soil, or parking or driving vehicles within the TPZ.
3. Cutting, breaking, skinning, or bruising roots, branches, or trunks without first obtaining authorization from the Project Arborist.
4. Discharging exhaust into foliage.
5. Securing cable, chain, or rope to trees or shrubs.
6. Trenching, digging, tunneling or otherwise excavating within the CRZ or TPZ of the tree(s) without first obtaining authorization from the Project Arborist.

Periodically inspect during construction - at four-week intervals - to assess and monitor the effectiveness of the TPP and provide recommendations for any additional care or treatment. More frequent may be required based on the TPP.

The following activities should be observed and inspected by the project arborist during the construction phase to ensure compliance with the approved TPP:

1. Only excavation by hand or compressed air shall be allowed within the TPZ of trees. Machine trenching shall not be allowed.
2. In order to avoid injury to tree roots, when a trenching machine is being used outside of the TPZ of trees, and roots are encountered smaller than 2", the wall of the trench adjacent to the trees shall be hand trimmed, making clear, clean cuts through the roots. All damaged, torn and cut roots shall be given a clean cut to remove ragged edges, which promote decay. Trenches shall be filled within 24 hours, but where this is not possible, the side of the trench adjacent to the trees shall be kept shaded with four layers of dampened, untreated burlap, wetted as frequently as necessary to keep the burlap wet. Roots 2" or larger, when encountered, shall be reported immediately to the Project Arborist, who will decide whether the Contractor may cut the root as mentioned above or shall excavate by hand or with compressed air under the root. All exposed roots are to be protected with dampened burlap.
3. Route pipes outside of the TPZ of a protected tree to avoid conflict with roots. Where it is not possible to reroute pipes or trenches, bore or tunnel beneath the TPZ of the tree. The boring shall take place not less than 3' below the surface of the soil in order to avoid encountering "feeder" roots. All boring equipment must be staged outside of the TPZ.
4. All grade changes adjacent to the TPZ of a significant tree shall be supervised by the Project Arborist. Cuts or Fills of soil that are adjacent to the TPZ will have a retaining wall system designed in consultation with the Project Arborist and approved in writing by City Staff.
5. Any damage due to construction activities shall be reported to the Project Arborist and City Staff within six hours so that remedial action can be taken.

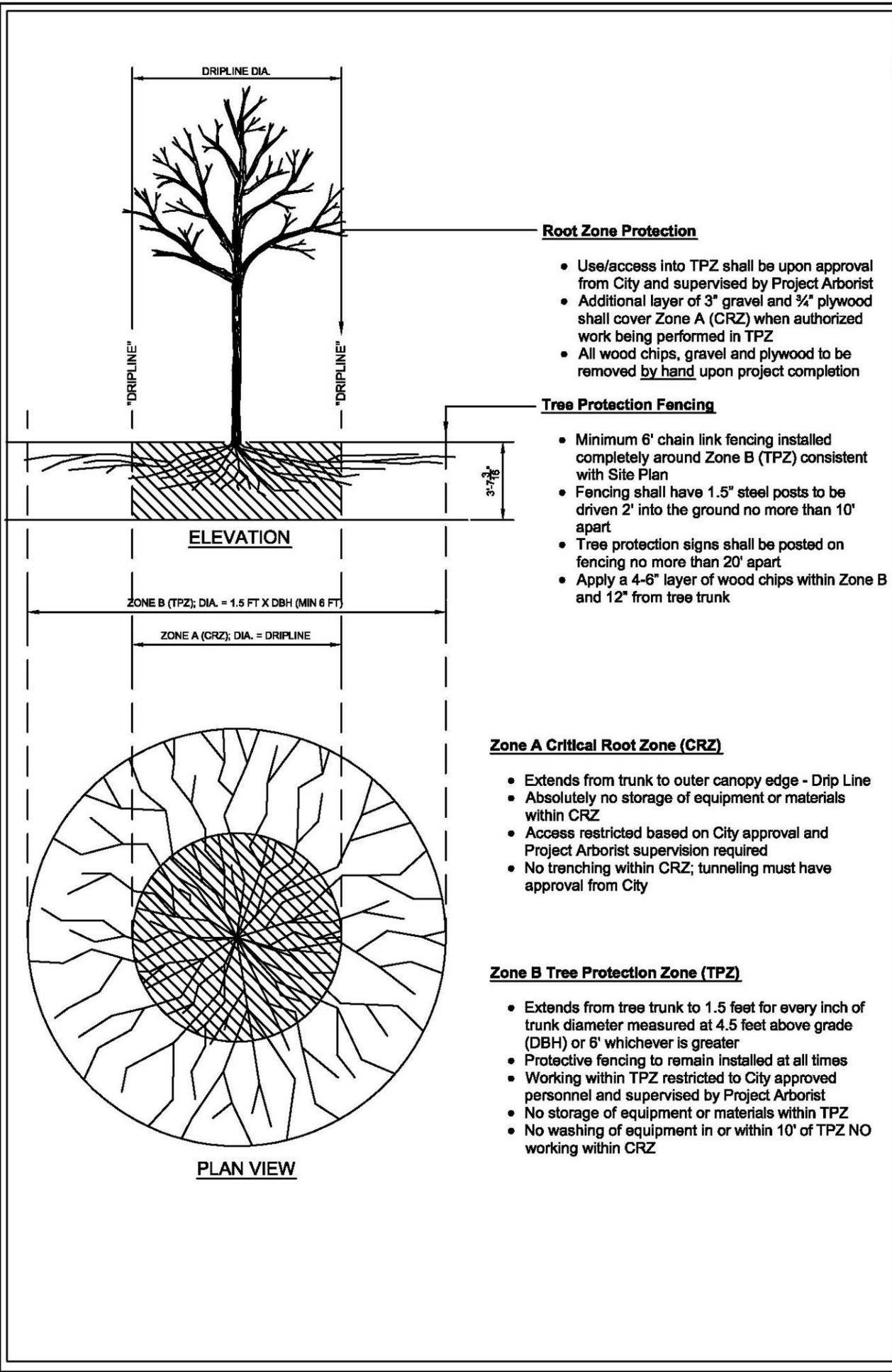
6. The Project Arborist shall be responsible for the preservation of the designated trees. Should the builder fail to follow the tree protection specifications, it shall be the responsibility of the Project Arborist to report the matter to City Staff as an issue of non-compliance.

Post-Construction

The Post-Construction Phase begins when the equipment leaves and the new tenants move in. Important follow-up monitoring of the protected trees will help ensure their survival and identify signs of early stress.

The applicant shall arrange with the Project Arborist for the long-term care and monitoring of preserved trees by complying with the following conditions:

1. Complete post-construction tree maintenance, including pruning, mulching, fertilization, irrigation, and soil aeration where necessary.
2. Remove, by hand, all soil and root protection material such as wood chips, gravel and plywood.
3. Provide for remediation of compacted soil by methods such as aeration or vertical mulching.
4. Apply at least 1 inch of water per week by deep watering in the absence of adequate rainfall.
5. Fertilize trees with slow released phosphorus, potassium, calcium, magnesium, and other macro- and micro-nutrients as indicated by a soil test, but wait at least one year to apply any nitrogen.
6. Fertilize lightly with slow release nitrogen after 1 year, and then make annual light nitrogen applications for the next 3 to 5 years.
7. Inspect trees annually for at least 3 and up to 5 years after construction to look for changes in condition and signs of insects or disease, and to determine maintenance needs.
8. Remove trees that are badly damaged or are in irreversible decline as determined by the Project Arborist and City Staff.
9. Continue to protect not only the large, established trees on the site but also those newly planted in the landscape as per LUC 20.20.520.K.
10. Provide annual inspection reports to the City.



Root Zone Protection

- Use/access into TPZ shall be upon approval from City and supervised by Project Arborist
- Additional layer of 3" gravel and 3/4" plywood shall cover Zone A (CRZ) when authorized work being performed in TPZ
- All wood chips, gravel and plywood to be removed by hand upon project completion

Tree Protection Fencing

- Minimum 6' chain link fencing installed completely around Zone B (TPZ) consistent with Site Plan
- Fencing shall have 1.5" steel posts to be driven 2' into the ground no more than 10' apart
- Tree protection signs shall be posted on fencing no more than 20' apart
- Apply a 4-6" layer of wood chips within Zone B and 12" from tree trunk

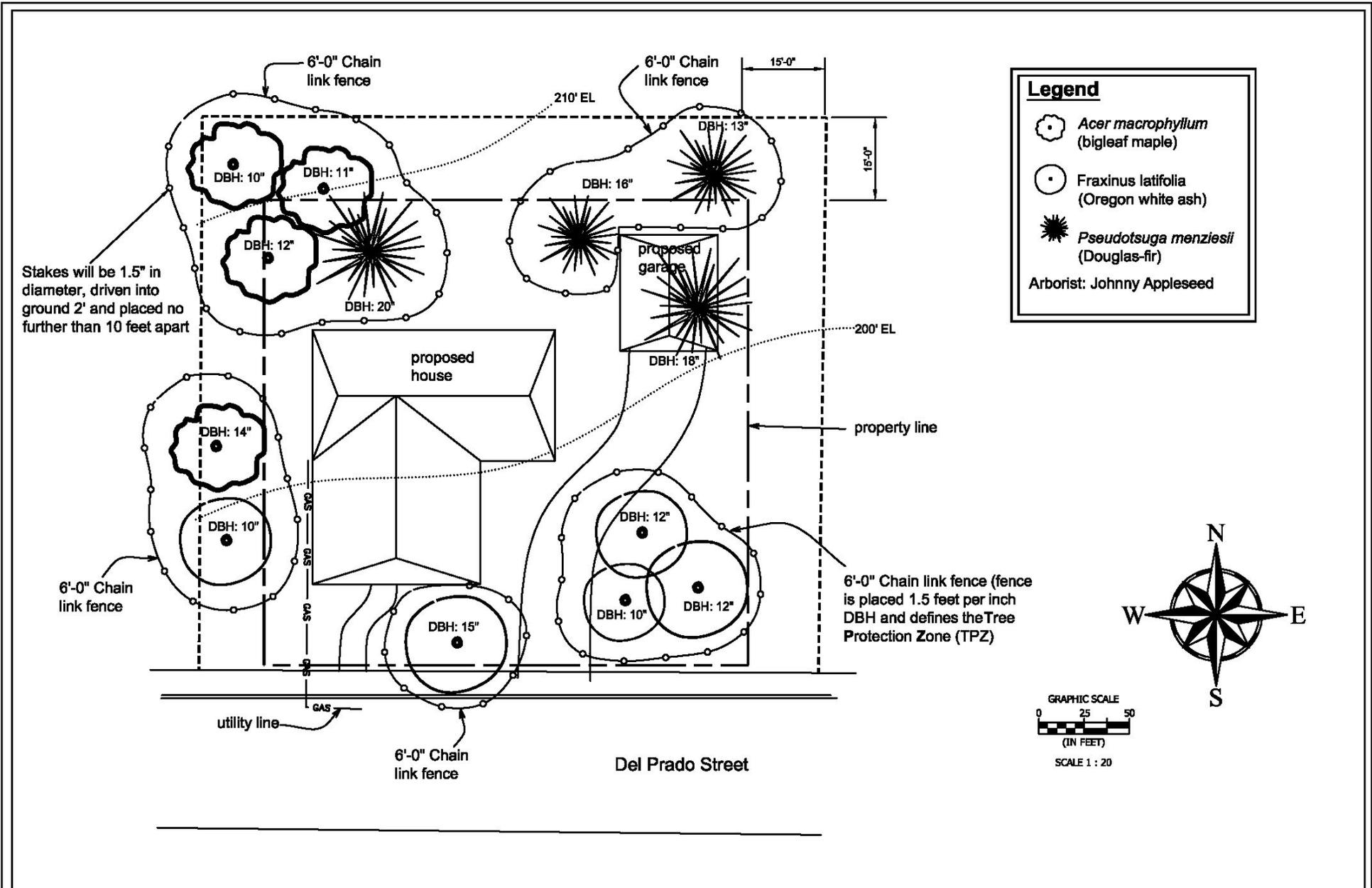
Zone A Critical Root Zone (CRZ)

- Extends from trunk to outer canopy edge - Drip Line
- Absolutely no storage of equipment or materials within CRZ
- Access restricted based on City approval and Project Arborist supervision required
- No trenching within CRZ; tunneling must have approval from City

Zone B Tree Protection Zone (TPZ)

- Extends from tree trunk to 1.5 feet for every inch of trunk diameter measured at 4.5 feet above grade (DBH) or 6' whichever is greater
- Protective fencing to remain installed at all times
- Working within TPZ restricted to City approved personnel and supervised by Project Arborist
- No storage of equipment or materials within TPZ
- No washing of equipment in or within 10' of TPZ NO working within CRZ

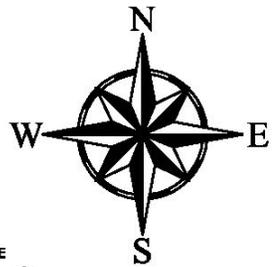
DRAWING NUMBER	1
SCALE	NTS
REVISION DATE	Draft
DEPARTMENT	ALL
<p>TITLE : Tree Protection Procedures During Construction</p>	



Legend

-  *Acer macrophyllum* (bigleaf maple)
-  *Fraxinus latifolia* (Oregon white ash)
-  *Pseudotsuga menziesii* (Douglas-fir)

Arborist: Johnny Appleseed



City of Bellevue

TITLE : Tree Protection Site Plan

DRAWING NUMBER	2
SCALE	1:20
REVISION DATE	Draft
DEPARTMENT	ALL

WARNING

TREE PROTECTION ZONE (TPZ)

- This fence shall not be removed and any injury to this or these trees is a violation of **BCC 20.20.900**.
- No grade change, storage of materials, vehicles or equipment is permitted within this TPZ
- No unauthorized entry is permitted
- This fence shall not be removed without written authorization of the City of Bellevue and supervision by the Project Arborist

Permit # _____

