

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE: QUASI-JUDICIAL: Action on Preliminary Formal Unit Lot Subdivision No. PLN20-0139, Dividing Eleven (11) Existing Parcels into Seventy (70) Unit Lots at 2105, 2117, and 2123 N 148th Street; 2116, 2122, 2132, 2142, and 2150 N 147th Street; 14704, 14710 and 14718 Meridian Avenue N (East side of Meridian Avenue N, between N 147th and 148th Streets)

DEPARTMENT: Planning and Community Development

PRESENTED BY: Cate Lee, Senior Planner

ACTION: Ordinance Resolution X Motion
 Discussion Public Hearing

PROBLEM/ISSUE STATEMENT:

Pulte Homes of Washington, Inc. requests application approval for a Preliminary Formal Subdivision to divide the existing 11 parcels of land, located at 2105, 2117, and 2123 N 148th Street; 2116, 2122, 2132, 2142, and 2150 N 147th Street; and 14704, 14710 and 14718 Meridian Ave N (the "Subject Property"), into 70 unit lots. Per Shoreline Municipal Code (SMC) Section 20.30.060, this request is a Type C permit and therefore is a quasi-judicial decision. The public hearing for this subdivision was held on January 18, 2022 by the Hearing Examiner, which created the record for the basis of a recommendation from the Hearing Examiner to the City Council. As such, the City Council cannot hear any additional public comment on this item and should not have external discussion regarding this request with members of the public.

The Hearing Examiner's Findings, Conclusions, and Recommendation (Attachment A), dated February 8, 2022, state that the subdivision application meets all of the criteria for approval of a subdivision, and, with conditions, makes appropriate provisions for the public health, safety, and general welfare. The Hearing Examiner recommends approval of the subdivision, subject to conditions listed in Attachment A. Tonight, the City Council is scheduled to discuss and take action on this Preliminary Formal Unit Lot Subdivision.

RESOURCE/FINANCIAL IMPACT:

The proposed subdivision may result in resource or financial impacts to the City. City services will be used by the future residents of this townhome development, and the additional parcels created as a result of the subdivision will add to the City's property tax base.

RECOMMENDATION

Staff recommends that the City Council accept the Hearing Examiner's recommendation and approve the Preliminary Formal Subdivision PLN20-0139 subject to the conditions included in the Hearing Examiner's recommendation.

Approved By: City Manager: ***DT*** City Attorney: ***MK***

BACKGROUND

On September 23, 2020, Pulte Homes of Washington, Inc. (Applicant) filed a subdivision application to subdivide eleven (11) existing parcels of land, located at 2105, 2117, and 2123 N 148th Street; 2116, 2122, 2132, 2142, and 2150 N 147th Street; 14704, 14710 and 14718 Meridian Avenue N (the "Subject Property"), into 72 unit lots, which through subsequent revisions was reduced to 70 unit lots. [Shoreline Municipal Code \(SMC\) Section 20.30.380](#) classifies this subdivision as a "Formal Subdivision." SMC 20.30.060 states that a Preliminary Formal Subdivision is a Type C action for which the Hearing Examiner holds an open record public hearing and makes a recommendation to the City Council. The City Council is the final decision-maker and can accept, deny, or modify the Hearing Examiner's recommendation.

The Subject Property is located in the Parkwood neighborhood. The Comprehensive Plan land use designation is Station Area 3. The Subject Property is zoned MUR-35' and is included in the 145th Street Station Subarea Plan but is not located within the 145th Street Planned Action Area. The Subject Property is 106,291 square feet (2.44 acres) in size and each lot is currently developed with a single-family residence and accessory structures. These structures will be demolished to accommodate new development. Demolition permits have been issued for these properties.

A pre-application meeting with staff was held on March 10, 2020 and the required neighborhood meeting was held on April 1, 2020 with six (6) residents in attendance. The subdivision application was submitted on September 23, 2020 and determined to be complete as of October 19, 2020. Three Notices of Application were issued for this Site. The first was issued on October 22, 2020, with the comment period ending November 5, 2020. This notice erroneously stated that the project qualified as a Planned Action consistent with Ordinance No. 752 Planned Action for the 145th Street Station Subarea. A corrected notice was issued on November 23, 2020, with the comment period ending December 7, 2020. In this instance, the required sign was not posted. An additional corrected notice was issued on December 4, 2020, with the comment period ending December 18, 2020. Twenty-six comments were received. All comments were in opposition to the proposal raising concerns related to increased density, increased traffic, and tree removal. A SEPA Determination of Nonsignificance (DNS) was issued November 22, 2021.

The Applicant has proposed 70 unit lots, satisfying the minimum density for the MUR-35' zoning district. This Preliminary Formal Unit Lot Subdivision application has been reviewed concurrently with building, site development, and right-of-way permit applications using the Consolidated Subdivision process under SMC 20.30.410(A)(3). The scope of work under the construction permits includes 14 single-family attached (townhome) buildings which vary in unit count by building from three (3) units up to eight (8) units, along with site and right-of-way improvements. Issuance of these permits is contingent on approval of this Preliminary Formal Subdivision. Each proposed lot is rectangular in shape, containing the necessary footprint for an attached single-family home and a portion of landscaping, walkways and driveways into private garages. There are two tracts proposed, Tract A is an access tract for vehicular circulation, and Tract B is common outdoor space.

Hearing Examiner Public Hearing

A Notice of Public Hearing was issued on January 3, 2022. The Hearing Examiner conducted an open record hearing on January 18, 2022. Prior to the Public Hearing, 12 written public comments were submitted to the Hearing Examiner Clerk in advance of the Public Hearing. All comments were in opposition to the proposal raising concerns related to increased density, increased traffic, stormwater treatment, and tree removal (including concerns related to wildlife habitat) and tree replacement. At the Public Hearing, four (4) public comments were given, primarily related to concerns on tree removal and replacement. On February 8, 2022, the Hearing Examiner issued a recommendation of approval subject to 25 conditions (Attachment A). These conditions require such things as the 11 existing lots being merged, utility easements, a joint use/maintenance agreement for easements, stormwater covenants, adequate fire access, right-of-way dedications, provisions for tree protection, and provisions for utilities.

DISCUSSION

As detailed in Section C of the Staff Report to the Hearing Examiner (Attachment B, Exhibit 1), the proposed Preliminary Formal Subdivision meets the criteria of SMC 20.30.410 and the provisions of RCW 50.17.110. As the Hearing Examiner determined in the recommendation of approval (see Conclusions Based on Findings), the Subdivision makes appropriate provisions for the public health, safety and general welfare, drainage, access, and other facilities and services. The Subdivision will also serve the public use and interest, creating additional opportunities for owner-occupied housing developed in a manner that is consistent with the City's Comprehensive Plan policies.

Quasi-Judicial Decision

Per SMC Section 20.30.060, this request is a Type C permit and therefore is a quasi-judicial decision. As noted above, the Public Hearing for this subdivision was held on January 18, 2022 by the Hearing Examiner, which created the record for the basis of a recommendation from the Hearing Examiner to the City Council. As such, the City Council cannot hear any additional public comment on this item and should not have external discussion regarding this request with members of the public.

ALTERNATIVES ANALYSIS

The City Council has three options regarding this Preliminary Formal Subdivision:

1. Approve the Preliminary Formal Subdivision application with the conditions recommended by the Hearing Examiner (staff recommendation).
2. Approve the Preliminary Formal Subdivision application with alternative conditions than those recommended by the Hearing Examiner. Certain conditions recommended by the Hearing Examiner may be removed from the final decision, or additional conditions may be added by the Council. The Council would need to provide a basis for the addition or removal of conditions.
3. Deny the Preliminary Formal Subdivision application. The Council would need to enter information into the record to provide a basis for making this decision, which is contrary to the recommendation of the Hearing Examiner.

RESOURCE/FINANCIAL IMPACT

The proposed subdivision may result in resource or financial impacts to the City. City services will be used by the future residents of this townhome development, and the additional parcels created as a result of the subdivision will add to the City's property tax base.

RECOMMENDATION

Staff recommends that City Council accept the Hearing Examiner's recommendation and approve the Preliminary Formal Subdivision PLN20-0139 subject to the conditions included in the Hearing Examiner's recommendation.

ATTACHMENTS

Attachment A: Hearing Examiner's Findings, Conclusions and Recommendation
Attachment B: Exhibits Admitted into the Hearing Examiner Record

**BEFORE THE HEARING EXAMINER
FOR THE CITY OF SHORELINE**

In the Matter of the Application of)	No. PLN20-0139
)	
Jim Sprott, Pulte Homes of Washington, Inc.)	Pulte 5 Degrees
)	
For Approval of a Preliminary)	FINDINGS, CONCLUSIONS,
<u>Formal Subdivision</u>)	AND RECOMMENDATION

SUMMARY OF RECOMMENDATION

The Hearing Examiner recommends that the application for a preliminary formal subdivision to subdivide 11 residential parcels totaling approximately 2.44 acres into 70 unit lots for single-family attached residences (townhomes), and associated improvements, at 2105, 2117, and 2123 North 148th Street; 2116, 2122, 2132, 2142, and 2150 North 147th Street; and 14704, 14710, and 14718 Meridian Avenue North, be **APPROVED**. Conditions are necessary to mitigate specific impacts of the proposed development.

SUMMARY OF RECORD

Hearing:

The Hearing Examiner held an open record hearing on the request on January 18, 2022, using remote access technology. The record was left open until January 25, 2022, to allow for the submission of additional comments on the proposal and to allow the Applicant to provide a response to the comments submitted.

Testimony:

The following individuals testified under oath at the open record hearing:

Cate Lee, City Senior Planner
Janet Way
Kathleen Russell
Lance Young
Nancy Morris
Holly Iosso, Project Arborist
Mariah Gill, Project Manager
Gina Brooks, Project Civil Engineer

Attorney Randall Olsen represented the Applicant at the hearing.

Exhibits:

The following exhibits were admitted into the record:

Findings, Conclusions, and Recommendation
City of Shoreline Hearing Examiner
Pulte 5 Degrees Preliminary Formal Subdivision, No. PLN20-0139

1. Staff Report
2. Application, received September 23, 2020
3. Boundary/Topographic Survey, dated July 31, 2020
4. Vicinity Map, dated June 26, 2020
5. Environmental Documents and Technical Reports:
 - a. Determination of Nonsignificance, issued November 22, 2021
 - b. Environmental Checklist, dated April 23, 2021
 - c. Traffic Impact Analysis, Transportation Engineering NorthWest, LLC, dated March 25, 2021
 - d. Arborist Report, Tree Solutions, Inc., revised August 26, 2021
 - e. Critical Areas Reconnaissance Report, Altmann Oliver Associates, LLC, dated March 15, 2021
 - f. Geotechnical Report, Terra Associates, Inc., dated December 13, 2019
 - g. Final Storm Drainage Report, Core Design, Inc., revised August 27, 2021
 - h. Phase I Environmental Site Assessment, Terra Associates, Inc., dated December 23, 2019
 - i. Email from Carolyn Decker, Terra Associates, Inc., to Jim Sprott, dated February 1, 2021, with email string
6. Neighborhood Meeting Notice
7. Neighborhood Meeting Report
8. Notice of Application Materials:
 - a. Notice of Application, dated October 22, 2020, with Site Plan and Vicinity Map; Affidavit of Publication, dated October 23, 2020, with ad copy, for publication in *The Seattle Times* on October 22, 2020
 - b. Revised Notice of Application and SEPA Comment Period, dated November 23, 2020, with Site Plan and Vicinity Map; Affidavit of Publication, dated November 25, 2020, with ad copy, for publication in *The Seattle Times* on November 23, 2020
 - c. Second Revised Notice of Application and SEPA Comment Period, dated December 4, 2020, with Site Plan and Vicinity Map; Affidavit of Publication, dated December 11, 2020, with ad copy, for publication in *The Seattle Times* on December 4, 2020
9. Notice of Public Hearing, with Site Plan and Vicinity Map
10. Public Comments:
 - a. Comment from Eric Sieverling, dated October 27, 2020
 - b. Comment from Puget Sound Clean Air Agency, dated December 11, 2020
 - c. Comment from Barry McGurl, dated December 12, 2020
 - d. Comment from Claudia Turner, dated December 13, 2020
 - e. Comment from Isis Charest, dated December 13, 2020
 - f. Comments from Andrea Gruszecki, dated December 13 and 14, 2020
 - g. Comment from Boni Biery, dated December 14, 2020
 - h. Comment from Gayle Janzen, dated December 14, 2020

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- i. Comment from Mary Anderson, dated December 13, 2020
- j. Comment from Craig Savage, dated December 15, 2020
- k. Comment from Denise Estes, dated December 14, 2020
- l. Comment from Susanne Tsoming, dated December 15, 2020
- m. Comment from Carla Carroll, dated December 16, 2020
- n. Comment from Kathleen Russell, dated December 16, 2020
- o. Comment from Miriam Adeney, dated December 16, 2020
- p. Comment from Rebecca Jones, dated December 16, 2020
- q. Comment from Melody Fosmore, dated December 17, 2020
- r. Comment from Save Shoreline Trees, dated December 17, 2020
- s. Comment from Ramona Gault, dated December 17, 2020
- t. Comment from Tina Carter, dated December 17, 2020
- u. Comment from Janet Way, dated December 18, 2020
- v. Comment from Jeffrey Eisenbrey and Catherine Kennedy, dated December 18, 2020
- w. Comment from Lance Young, dated December 18, 2020
- x. Comment from Nancy Morris, dated December 18, 2020
- y. Comment from Ruth Williams, dated December 18, 2020
- z. Comment from Susanne Tsoming, dated July 22, 2021
- 11. Comment from Puget Sound Clean Air Agency, dated December 11, 2020
- 12. Tree Retention Calculation Worksheet, received November 2, 2021
- 13. Tree Replacement Exception Letter, dated November 10, 2021
- 14. Site Plan (2 Sheets), revised August 27, 2021
- 15. Road and Grading Plan (2 Sheets), revised August 27, 2021
- 16. Preliminary Plat Drawings (2 Sheets), revised August 13, 2021
- 17. Project Reviews Report, generated January 4, 2022
- 18. Architectural Site Plan, revised August 19, 2021
- 19. Right-of-Way Plan (7 Sheets), revised April 20 and August 13, 2021
- 20. Water Availability Certificate, dated September 2, 2020
- 21. Revision to Project Reviews Report, dated January 14, 2022
- 22. Additional Public Comments:
 - a. Comment from Janet Way, dated January 14, 2022, with comment addendum, dated January 17, 2022, and second comment addendum, dated January 18, 2022
 - b. Comment from Susanne Tsoming, dated January 17, 2022
 - c. Comment from Sandy Shettler, dated January 17, 2022
 - d. Comment from Bethany Williamson, dated January 17, 2022
 - e. Comment from Sam Beatt, dated January 17, 2022
 - f. Comment from Thornton Creek Alliance, dated January 18, 2022
 - g. Comment from Gordan Dass Adams, dated January 18, 2022
 - h. Comment from Nancy Morris, dated January 18, 2022
 - i. Comment from Joshua Morris, dated January 18, 2022
 - j. Comment from Isis Charest, dated January 18, 2022
 - k. Comment from David Moehring, dated January 2, 2022

1. Comment from Eric Sieverling, dated January 18, 2022
23. Memorandum from Attorney Randall Olsen on behalf of the Applicant, dated January 18, 2022, with attachments
24. City Staff Presentation
25. Oral Comments from Kathleen Russell, dated January 18, 2022
26. Oral Comments from Nancy Morris, dated January 18, 2022
27. Post-Hearing Comment from Janet Way, dated January 20, 2022
28. Post-Hearing Comment from Nancy Morris, dated January 21, 2022
29. Post-Hearing Comment from Boni Biery, dated January 20, 2022
30. Applicant Memorandum in Response to Post-Hearing Comments, dated January 25, 2022

The Hearing Examiner enters the following findings and conclusions based upon the testimony at the open record hearing and the admitted exhibits:

FINDINGS

Application and Public Notice

1. Jim Sprott, of Pulte Homes of Washington, Inc. (Applicant), requests approval of a preliminary formal subdivision¹ (subdivision) to subdivide 11 residential parcels totaling approximately 2.44 acres into 70 individual fee simple unit lots, a shared private access and utilities tract, and a common open space tract, for development of 70 townhome units in 14 buildings, with associated improvements. The development would be located at 2105, 2117, and 2123 North 148th Street; 2116, 2122, 2132, 2142, and 2150 North 147th Street; and 14704, 14710, and 14718 Meridian Avenue North (site).² *Exhibit 1, Staff Report, page 1; Exhibits 2 through 4; Exhibit 7; Exhibit 9; Exhibit 14; Exhibit 16; Exhibit 18.*
2. A pre-application neighborhood meeting was held on April 1, 2020. At the meeting, the Applicant's design team responded to community questions and concerns regarding:
 - Whether the townhome buildings would include rooftop decks or balconies.
 - How far the buildings would be set back from adjacent properties developed with single-family residences.
 - How garbage collection would be provided on the site.
 - How off-street parking would be provided to residents of the subdivision.
 - The sale price of the townhome units and whether the proposal would include affordable housing options.

¹ A formal subdivision is a subdivision of 10 or more lots. *Shoreline Municipal Code (SMC) 20.30.380.B.*

² The subject parcels are identified by Tax Assessor Parcel Nos. 7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145, and 7771300060. *Exhibit 1, Staff Report, page 1.* Legal descriptions of the subject parcels are included with the boundary/topographic survey. *Exhibit 3.*

- Whether sidewalks would be installed along the property's entire frontage with North 148th Street.
 - How the project would mitigate for its traffic impacts.
 - How the project would address the existing trees on-site.
 - Whether walkways through the site would be available to the public.
 - How water service would be provided to the new units.
 - Whether noise from air conditioning units would impact neighboring properties.
- Exhibit 1, Staff Report, page 3; Exhibit 6; Exhibit 7.*

3. The City of Shoreline (City) determined that the application was complete on October 19, 2020. On October 22, 2020, the City issued notice of the application for the proposed subdivision, with the comment deadline of November 5, 2020. The City later determined that the notice materials erroneously stated that the project would qualify as a planned action for the 145th Street Station Subarea and, on November 23, 2020, issued a corrected notice of the application, with a new comment deadline of December 7, 2020. The City again determined that notice of the application was deficient, this time due to a failure to post notice on-site. Accordingly, on or about December 4, 2020, the City provided a second corrected notice of the application, consistent with the requirements of Shoreline Municipal Code (SMC) 20.30.120, by mailing or emailing notice to property owners within 500 feet of the subject property and to reviewing agencies, posting notice on-site, and publishing notice in *The Seattle Times*, with a comment deadline of December 18, 2020. On January 3, 2022, the City issued notice of the public hearing associated with the application in the same manner. The public hearing notice materials stated that comments on the proposal could be submitted up until the close of the hearing. *Exhibit 1, Staff Report, page 3; Exhibit 8; Exhibit 11.*
4. The City received numerous comments on the proposal from members of the public in response to its notice materials. The overwhelming majority of the public comments raised concerns about the project's proposed removal of existing mature trees on-site to facilitate the development.³ Comments on this topic noted that several existing mature trees in the neighborhood have been removed to facilitate increased development around the 145th Street Light Rail Station and expressed concerns that the proposed tree removal from the property would contribute to the loss of tree canopy in the city, adversely impact wildlife habitat (particularly bird species), impact air quality, contribute to global

³ Concerns regarding the project's proposed tree removal were raised by Barry Gurl, Claudia Turner, Isis Charest, Andrea Gruszecki, Gayle Janzen, Craig Savage, Denise Estes, Susanne Tsoming, Carla Carroll, Kathleen Russell, Miriam Adeney, Rebecca Jones, Melody Fosmore, Ramona Gault, Tina Carter, Janet Way, Jeff Eisenbrey, Catherine Kennedy, Lance Young, Nancy Morris, Ruth Williams, Kathy Kaye, Barbara Johnstone, Sandy Shettler, Bethany Williamson, Sam Beatt, Dan Keefe, Gordan Adams, Joshua Morris, and David Moehring. These comments raised concerns about the proposed tree removal both individually and on behalf of several community groups, including Save Shoreline Trees, Shoreline Preservation Society, Interurban Trail Tree Preservation Society, Tree PAC, Thorton Creek Alliance, and Seattle Audubon. *Exhibit 10; Exhibit 22.*

warming/climate change, impact stormwater drainage capacity, impact the ecosystem of the nearby Twin Ponds Park and the Thorton Creek watershed, and impact the existing aesthetics of the neighborhood. Several comments on the topic suggested that the proposed tree removal would be contrary to Comprehensive Plan goals and policies promoting tree preservation to protect the natural environment, wildlife habitat, and air quality. Other comments recommended that the Applicant redesign the proposed development to retain more significant trees on-site. The Applicant's specific tree retention, removal, and replacement plan is discussed in detail later in this recommendation. The City also received the following comments raising concerns about other aspects of the proposal:

- Eric Sieverling raised concerns that the density of the proposed development would not be compatible with the existing character of the neighborhood and about the proposal's traffic and parking impacts.
- Mary Anderson raised concerns that the proposed development would not be appropriate for the site, stating that there is no current need for additional residential density in the area.
- In addition to raising concerns about the project's tree removal plan, Janet Way, on behalf of Shoreline Preservation Society, raised concerns about the proposed development's traffic, stormwater, and pedestrian safety impacts. She also raised concerns about the proposed density of the project.
- In addition to raising concerns about the project's tree removal plan, Lance Young, both individually and on behalf of Interurban Trail Tree Preservation Society and Tree PAC, raised concerns about the proposal's traffic and pedestrian safety impacts.
- In addition to raising concerns about the project's tree removal plan, Ruth Williams raised concerns about the traffic impacts of the proposed development.

Exhibit 10; Exhibit 22.

State Environmental Policy Act

5. The City acted as lead agency and analyzed the environmental impacts of the proposed development under the State Environmental Policy Act (SEPA), Chapter 43.21C Revised Code of Washington (RCW). The City consolidated notice of the SEPA review and application comment periods under the optional process provided for by Washington Administrative Code (WAC) 197-11-355, with a comment deadline of December 18, 2020. The notice materials stated that the City expected to issue a Determination of Nonsignificance (DNS) for the proposal. The City received a comment from Puget Sound Clean Air Agency (PSCAA), which stated that demolition activities associated the proposal would be subject to PSCAA regulations. Also, as noted above (and discussed in further detail later in this recommendation), the City received several comments from members of the public concerning the environmental impacts of the project's planned removal of trees from the site. The City reviewed the Applicant's environmental checklist and other information on file, including the submitted comments, and determined that the proposal would not have a probable significant adverse impact on the

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environment. Accordingly, the City's SEPA Responsible Official issued a DNS on November 22, 2021, with an appeal deadline of December 6, 2021. The DNS was not appealed. *Exhibit 1, Staff Report, pages 3 through 5; Exhibit 5.a; Exhibit 5.b; Exhibit 8; Exhibit 10; Exhibit 11.*

Comprehensive Plan and Zoning

6. The City's Comprehensive Plan designates the site as "Station Area 3." The purpose of the Station Area 3 designation is to encourage transit-oriented development in areas surrounding future light rail stations, including development of medium density residential uses, some neighborhood commercial uses, increased housing choices, and transitions to low density single-family homes. *Comprehensive Plan Policy LU13.* The property is also located within the 145th Street Station Subarea. The 145th Street Station Subarea Plan includes a vision statement noting that, over time, "the subarea will transform into a vibrant transit-oriented village with a variety of housing choices and neighborhood supporting retail connected by a green network of pedestrian and bicycle facilities, stormwater infrastructure, parks and open spaces, and other amenities." *145th Street Station Subarea Plan, page 5-2.* City staff reviewed the proposal and determined that it would be consistent with the Comprehensive Plan and the 145th Street Station Subarea Plan. *Exhibit 1, Staff Report, pages 2 through 4; Testimony of Cate Lee.*
7. The property is zoned Mixed-Use Residential 35' (MUR-35'). The property was rezoned to the MUR-35' zoning classification in 2016 to implement the 145th Street Station Subarea Plan. The purpose of the City's mixed-use residential zones is "to provide for a mix of predominantly multifamily development ranging in height from 35 feet to 70 feet in appropriate locations with other nonresidential uses that are compatible and complementary." *SMC 20.40.046.A.* Single-family attached residential dwellings (townhomes) are a permitted use in the MUR-35' zone. *SMC Table 20.40.160.*
8. SMC Table 20.50.020(2) provides site development standards applicable to development in the MUR-35' zone. The MUR-35' zone requires a minimum density of 12 dwelling units per acre and does not have a maximum density requirement. *SMC Table 20.50.020(2).* The proposed development would exceed the minimum density requirement by providing 70 dwelling units on the 2.44-acre property (29 units per acre). SMC 20.50.020(2) also requires a minimum front yard setback of 0 feet on arterial streets (Meridian Avenue North) and 10 feet on nonarterial streets (North 147th Street and North 148th Street), minimum back yard and side yard setbacks of 5 feet, and a maximum hardscape of 85 percent. SMC 20.50.020 provides an exception allowing zero lot line and unit lot developments. *See also SMC 20.30.410.B.4.* The exception applies only to internal lot lines, and the overall site must comply with setbacks, building coverage, and hardscape limitations. *SMC 20.30.410.B.4; SMC 20.50.020.* The Applicant's site plans demonstrate that the proposed unit lot development would comply with the minimum setback and maximum hardscape requirements. *Exhibit 1, Staff Report, pages 2 through 4, 8, and 9; Exhibit 14; Exhibit 16; Exhibit 18.*

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Existing Site and Surrounding Development

9. The approximately 2.44-acre site consists of 11 of 17 residential parcels located within the block bordered by North 148th Street to the north, North 147th Street to the south, Corliss Avenue North to the east, and Meridian Avenue North to the west. All 17 of the parcels within the block are currently developed with single-family residences and associated accessory structures, and all existing structures within the 11-parcel project area would be demolished as part of the proposed development. The Applicant proposes to construct 14 buildings on the site that would provide 70 townhouse units. The proposed buildings would range in size from 2,000 square feet for three townhome units up to 5,280 square feet for eight townhome units. The site generally slopes down to the north, with an approximate 14-foot change in elevation, and contains vegetation generally consisting of grass lawn areas and landscaping trees and shrubs. The property contains several mature trees in the central portion of the site and, as discussed in further detail below, the project site would be completely redeveloped, apart from tree retention areas. The proposed unit lots would be platted in a linear manner, with the majority of lots oriented east-west and the remaining lots oriented north-south. Specifically, Lots 1-5 would be oriented east-west, facing North 148th Street; Lots 6-12 would be oriented north-south along the one of the eastern property boundaries; Lots 13-17 would be oriented east-west and located to the south of Lots 1-5; Lots 18-35 would be oriented east-west; Lots 36-57 would be oriented east-west, facing North 147th Street and located to the south of Lots 18-35; and Lots 58-70 would be oriented north-south, facing Meridian Avenue North. City staff reviewed the proposal and determined that it would meet lot and street layout design standards. *Exhibit 1, Staff Report, pages 1, 2, and 7; Exhibit 3; Exhibit 5; Exhibit 14; Exhibit 16; Exhibit 18.*

10. Adjacent properties to the east of the site are within the MUR-35' zone and are developed with single-family residences. Properties further to the east, across Corliss Avenue North and properties to the south, across North 147th Street, are zoned MUR-45' and are currently developed with single-family residences. Properties to the west, across Meridian Avenue North, and to the north, across North 148th Street, are zoned R-6 and are developed with single-family residences. The properties to the north are scheduled to be rezoned to MUR-35' in 2033 as part of Phase 2 of the 145th Street Subarea Plan. The property is within the Parkwood neighborhood, which encompasses the southern area of the city between 145th Street and 160th Street and between Aurora Avenue and I-5. The Parkwood neighborhood was developed as a low-density residential area in the 1940s and 1950s. Historically, buildings developed within the Parkwood neighborhood were one to two stories in height, with building footprints covering only a small portion of their sites. In recent years, however, the neighborhood has experienced redevelopment of higher density three-story townhouse buildings after portions of the neighborhood were included within the City's 145th Street Subarea and rezoned to MUR zoning districts in 2016. *Exhibit 1, Staff Report, page 2; Exhibit 4.*

Critical Areas

11. The Growth Management Act, Chapter 36.70A RCW, requires the City to designate environmentally critical areas and adopt regulations to ensure conservation of such areas. The provisions of the City's Critical Areas Code establish standards for the protection of critical areas, including geologic hazard areas, fish and wildlife habitat conservation areas, wetlands, flood hazard areas, and aquifer recharge areas, while maintaining a property owner's reasonable economic use of property and maintaining the provision of services necessary to support existing and planned development. City staff reviewed the technical reports submitted with the application (discussed in further detail below) and determined that the site does not contain any critical areas or associated buffers. *SMC 20.20.014; Chapter 20.80 SMC. Exhibit 1, Staff Report, pages 3, 5, and 7.*

12. Terra Associates, Inc., prepared a geotechnical report for the proposal, dated December 13, 2019, which determined that the site does not contain any geologic hazard areas and that the site would be suitable for the proposed development from a geotechnical perspective. The geotechnical report also determined that on-site soils exhibit relatively low permeability, precluding the use of stormwater retention facilities, and that stormwater runoff should be managed using conventional stormwater techniques. The geotechnical report provided recommendations related to site preparation and grading, excavations, foundations, slab-on-grade floors, drainage, utilities, and pavements. Terra Associates, Inc., also prepared an environmental site assessment for the proposal, dated December 23, 2019, addressing the presence of residential heating oil underground storage tanks (USTs) on-site. The site assessment determined that all the existing residences on-site were originally heated with oil furnaces that likely utilized USTs, with most of the residences later converted to electric, natural gas, or baseboard heat. The Applicant's project engineer, Carolyn Decker, of Terra Associates, Inc., has indicated that all existing heating oil USTs would be removed during redevelopment of the site and that the removal operations would be performed under appropriate permits from the City and the local fire district. Ms. Decker further indicated that each UST cavity would be assessed by a certified UST assessor and that, if releases are determined to have occurred, the releases would be reported to the Washington State Department of Ecology, and appropriate clean up actions would be conducted in compliance with the Model Toxics Control Act. *Exhibit 5.f; Exhibit 5.h; Exhibit 5.i.*

13. Altmann Oliver Associates, LLC, prepared a critical areas reconnaissance report for the proposal, updated March 15, 2021. The report determined that no regulated wetlands, streams, or fish and wildlife habitat conservation areas were identified on or within 300 feet of the site. *Exhibit 5.e.*

Trees and Open Spaces

14. As discussed above, the City received numerous comments from members of the public and various community groups raising concerns about the Applicant's plan to remove

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several mature trees from the property to facilitate the proposed townhome development project. SMC 20.50.350 provides minimum tree retention requirements for new development proposals. Because the site does not contain any critical areas, SMC 20.50.350.B.1 would require the Applicant to retain a minimum of 20 percent of the existing significant trees on-site. Tree Solutions, Inc., prepared an Arborist Report for the proposed development, revised August 26, 2021, which identified 86 significant trees on the property. The Applicant proposes to remove 67 of the existing significant trees and to retain 19 significant trees, with several of the retained trees to be located within a common open space tract (Tract B). Of the 67 trees proposed for removal, 16 are exempt from retention and replacement requirements under SMC 20.50.310.B.1, which exempts “the removal of three significant trees on lots up to 7,200 square feet and one additional significant tree for every additional 7,200 square feet of lot area.” Accordingly, when accounting for this exemption, the Applicant would comply with the minimum tree retention requirement by retaining 27 percent of the existing significant trees on-site.⁴ *Exhibit 1, Staff Report, pages 4 through 6; Exhibit 5.d; Exhibit 12; Exhibit 13; Exhibit 18.*

15. SMC 20.50.360 sets forth the requirements for replacement trees and would require the Applicant to provide 139 trees on-site to replace the 51 non-exempt significant trees proposed for removal. SMC 20.50.360 provides the City Planning and Community Director (Director), however, with authority to reduce the minimum number of required placement trees when the Applicant demonstrates that the project site cannot feasibly accommodate all the required replacement trees. *SMC 20.50.360.C.b.* On November 10, 2021, the Director approved, with conditions, the Applicant’s request to reduce the required replacement trees from 139 to 110. In addition to the 110 new replacement trees on-site, the Applicant proposes to plant 32 new street trees, which is 12 more street trees than would be required to be planted to replace the 12 trees within the right-of-way that would be removed to facilitate required street frontage improvements. *SMC 12.30.040; SMC 20.50.350.B.5.* In granting the reduction, the Director determined that request was necessary primarily due to the retention of additional significant sized trees beyond the minimum requirement, the presence of off-site tree canopy extending on to the property that would limit the ability to replant new trees within the existing canopy, and the provision of residential density on the site consistent with the desired density for the MUR-35’ zoning district. The Director further noted that planting the required number of replacement trees on-site could disturb the established critical root zones of retained trees and could lead to overcrowding and competition for water and sunlight. *Exhibit 1, Staff Report, pages 4 through 6; Exhibit 5.d; Exhibit 12; Exhibit 13; Exhibit 18.*
16. The Director imposed the following conditions as part of the approved tree replacement reduction:

⁴ Even without the exception under SMC 20.50.310.B.1, the proposal would comply with the minimum tree retention requirement by retaining 22 percent of the existing significant trees on-site. *Exhibit 5.d.*

- Tree protection shall be in place at time of pre-construction meeting as shown on approved plans. Tree protection shall remain in place until final inspection and shall not be removed except as outlined in the approved arborist report.
- Pre-construction meeting required. Project arborist shall attend pre-construction meeting with city building inspector and project general contractor.
- Project arborist shall be onsite for removal of hardscape adjacent to tree protection area on the southeast corner of the site.
- Applicant shall provide city planner with monitoring reports (electronic, PDF file) from project arborist on retained trees as follows:
 - Start of construction (post-demolition, pre-site grading work)
 - Beginning of dry season (May), annually if construction spans more than one year
 - End of dry season (September), annually if construction spans more than one year
 - End of site grading and utility installation
- Trees shall not be removed during bird nesting season, which stretches from the last week of February to the first week of August, unless the project ecologist is onsite to facilitate bird nest relocation. If a young bird is encountered and is unable to fly, the project ecologist shall contact the approved rehabilitation facility, PAWS in Lynnwood, WA.

Exhibit 1, Staff Report, pages 4 through 6; Exhibit 13.

17. City staff determined that no dedication of park land is required by the proposed project. Future development of the site with housing units would require the payment of park impact fees pursuant to Chapter 3.70 SMC. *Exhibit 1, Staff Report, pages 9 and 13.*

Stormwater Management

18. Core Design, Inc., prepared a storm drainage report for the proposed development, revised August 27, 2021. Stormwater runoff would be collected and conveyed to a stormwater vault for flow control and to a BioPod Biofilter for water quality treatment before discharging to the City's existing stormwater system within North 148th Street, at the intersection of North 148th Street and Corliss Avenue North. SMC 20.60.070 requires that all new development shall be served by a surface water management system approved by the City Public Works Department. Stormwater requirements are reviewed under the 2012 Department of Ecology Stormwater Manual for Western Washington, as amended in 2014. The City Public Works Department reviewed the proposed development and determined that it would comply with applicable stormwater management requirements. *Exhibit 1, Staff Report, pages 7, 12, and 13; Exhibit 5.g.*

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Access, Parking, and Traffic

19. Access to the proposed subdivision would be provided at two locations on North 148th Street and a single location on North 147th Street, with access to the individual townhome units provided by internal private drive aisles within proposed Tract A. The new drive aisles would be graded to meet the requirements of the City Engineering Development Manual, while attempting to minimize changes to the existing site topography. The City Public Works Department reviewed the proposal and determined that it would provide adequate access to serve the development. Because the proposed development would be located in a MUR-35' zoning district, it would be required to provide a minimum of one off-street parking space for each townhome unit. *SMC 20.50.390.A*. The Applicant would exceed this requirement by providing a total of 111 parking spaces within individual unit garages. The Applicant would construct street frontage improvements along Meridian Avenue North, North 147th Street, and North 148th Street. Frontage improvements along Meridian Avenue North, from the centerline of the right-of-way, would include a 5-foot half of a center turn lane, 11-foot travel lane, 7-foot bike lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk, as well as pedestrian scale lighting and ADA compliant curb ramps for legal crossings. Frontage improvements along North 147th Street and North 148th Street, from the centerline of the rights-of-way, would include 10-foot travel lanes, 7-foot parking lanes, 6-inch curbs, 5-foot amenity zones, and 8-foot sidewalks. Lots with street frontage would have direct pedestrian access from the public sidewalk to the front entry of each unit, and the remaining lots without street frontage would have pedestrian access from the public sidewalk to the units from shared walkways. This would ensure that students residing within the subdivision would have safe conditions for walking to nearby schools and school bus stops. *Exhibit 1, Staff Report, pages 7 through 10; Exhibits 14 through 16; Exhibit 18.*

20. Transportation Engineering NorthWest, LLC, prepared Traffic Impact Analysis (TIA) for the proposal, dated March 25, 2021. The TIA determined that the proposal to develop 70 new residential townhome units would generate 277 new daily weekday trips, with 17 new AM peak-hour trips and 20 new PM peak-hour trips. The City's transportation concurrency standards do not require intersection level-of-service analyses for development projects that would generate 20 or fewer new PM peak-hour trips. The Applicant would mitigate for the project's impacts to the City's transportation network through the payment of traffic impacts fees and the required frontage improvements along Meridian Avenue North, North 147th Street, and North 148th Street. The City Traffic Engineer reviewed the TIA and determined that additional mitigation measures would not be required under the municipal code or the City Engineer Development Manual. *Exhibit 1, Staff Report, pages 3, 5, and 13; Exhibit 5.c.*

Utilities and Services

21. Chapter 20.60 SMC requires that all development proposals requiring City approval be adequately served by public facilities prior to occupancy, plat recording, or other land use

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approval. Such public facilities include sewer and/or wastewater disposal, water supply, fire protection service, surface and stormwater management, and streets and access. *SMC 20.60.020.A*. City Public Works Department Wastewater Utility staff reviewed the proposed subdivision and determined that sufficient sewer capacity is available, subject to conditions. Seattle Public Utilities reviewed the proposed subdivision and issued a Water Availability Certificate, dated September 2, 2020. The Shoreline Fire Department reviewed the proposal for adequate emergency vehicle access, water pressure to the site, and proximity to fire hydrants and determined that the proposal is satisfactory, subject to conditions. Future development of the site with the townhome units will require the payment of fire impact fees under Chapter 3.75 SMC. As noted above, the City Public Works Department reviewed the proposed subdivision and associated development and determined that surface water standards would be satisfied and that the proposed shared drive aisles would provide adequate access from North 147th Street and North 148th Street. *Exhibit 1, Staff Report, page 12; Exhibit 17; Exhibit 20; Exhibit 21.*

Testimony

22. City Senior Planner Cate Lee testified generally about the proposal and how, with conditions, it would meet the specific criteria for approval of a preliminary formal subdivision. She described the existing conditions of the property and the proposed development, consistent with the findings above. Ms. Lee noted that the City received several comments on the proposal from members of the public, nearly all of which raised concerns about the tree removal that would be required for the proposed townhome development. She detailed how the Applicant's tree retention and replacement plan would comply with all municipal code requirements, explaining that the City Planning and Community Director approved a reduction in the number of replacement trees that would be required to be planted on-site after determining that the reduction would be necessary to protect the established root systems of retained trees and to allow the required replacement trees to thrive. Ms. Lee noted that the proposal would exceed off-street parking requirements. She also noted that the City Traffic Engineer reviewed the Applicant's Traffic Impact Analysis and determined that mitigation would not be required beyond the payment of traffic impact fees and the construction of required frontage improvements. Ms. Lee stated that the proposal would comply with applicable density standards for the MUR-35' zone, as well as applicable setback and hardscape requirements that apply to the overall site through the City's unit lot subdivision provisions. She explained that, since the time that the application was deemed complete, the City's tree regulations have been amended to allow for the payment of a fee in lieu of required replacement trees that could not feasibly be planted on-site. *Testimony of Ms. Lee.*
23. Attorney Randall Olsen appeared at the hearing on behalf of the Applicant. He introduced the Applicant team and stated that the Applicant generally agrees with the analysis of the proposal as presented in the City staff report but requests to clarify the language within some of City staff's recommended conditions. Ms. Lee testified that the

Applicant's proposed language changes were reviewed by the Assistant City Attorney and the City Public Works department, and that the City has no issues with the Applicant's proposed language changes to the recommended conditions. *Statements of Attorney Olsen; Testimony of Ms. Lee.*

24. Janet Way testified at the hearing on behalf of the Shoreline Preservation Society (SPS). She stated that the proposed tree removal plan would not be consistent with Comprehensive Plan goals and policies promoting the maintenance and improvement of the city's tree canopy. Ms. Way also raised concerns that the Director's approval of the Applicant's request to reduce the number of replacement trees required to be planted on-site is not warranted in light of the thousands of trees that have been lost as part of increased development in the 145th Street Station Subarea. In addition, she raised concerns that the Applicant's tree removal and replacement plan would not adequately address impacts related to air quality, climate change, and stormwater runoff. Ms. Way also noted her concerns about the proposed development's impacts to traffic and schools. *Testimony of Ms. Way.*
25. Kathleen Russell of the community group Save Shoreline Trees testified that the proposed removal of 67 existing mature trees on-site, as well as 12 right-of-way street trees would be devastating to the Parkwood neighborhood and the City of Shoreline, noting that the existing trees provide benefits such as clean air, shade, and habitat for birds and wildlife. She stated that the proposed replacement trees would not provide benefits equivalent to that provided by the existing mature trees in terms of collecting and storing carbon. Ms. Russell noted that Save Shoreline Trees hopes that future development will recognize the value of trees and will design structures and buildings around existing trees. *Testimony of Ms. Russell.*
26. Lance Young, on behalf of Interurban Trail Tree Preservation Society and Tree PAC, testified that several community groups have been working with the City to update its building codes and tree canopy preservation codes to address current environmental needs. He raised concerns that increased tree removal within the city to facilitate higher density development projects has resulted in adverse impacts to bird habitat and that the proposed tree removal from the property to facilitate the current townhome development project is inconsistent with Comprehensive Plan goals promoting the preservation of the city's tree canopy. *Testimony of Mr. Young.*
27. Nancy Morris echoed the concerns raised about the proposed tree removal from the site, noting that it would result in adverse impacts to bird habitat and suggesting that the project be redesigned to preserve more mature trees on-site. She raised concerns about the impacts to climate change from tree removal and indicated that the City should update its code to better protect mature trees. *Testimony of Ms. Morris.*
28. Attorney Olsen responded to the concerns raised by members of the public at the hearing,

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noting that he is aware of various impacts associated with growth regarding displacement, the environment, and race and equity. He stated that the City went through a deliberate process in adopting its development plans and policies, resulting in a decision to locate increased density near regional transit nodes that would serve the growing population in a manner reducing environmental impacts. Attorney Olsen asserted that the proposed development has been reviewed under these applicable plans and policies and would comply with those plans and policies. *Statements of Attorney Olsen.*

29. Project Arborist Holly Iosso, of Tree Solutions, Inc., testified that she prepared the Arborist Report for the proposed development. She stated that she conducted an inventory of existing trees on-site and worked with the Applicant's team to refine the project design around the various groves of trees that would be retained on the property and protected during construction. Ms. Iosso noted that the proposed tree plan would retain more than 20 percent of existing trees on-site and stressed that the trees identified for retention are part of a continuous canopy, rather than spread out through the site. She explained that the requested reduction in required replacement trees would be vital to ensure that the critical root zones of retained trees would not be adversely impacted by new understory tree plantings. Ms. Iosso noted that tree protection measures outlined in the proposed landscape plan include tree protection fencing during construction, arborist participation at the preconstruction meeting, regular site visits, no soil disturbance, mulching, and temporary irrigation to ensure that the retained trees would sustain construction impacts and would remain viable. *Testimony of Ms. Iosso.*
30. The Applicant's project manager, Mariah Gill, testified about measures that would be taken to protect birds during the nesting season. She explained that the project would conduct landscape maintenance and brush clearing activities around the vacant residences on the property prior to the start of nesting season to discourage ground nesting. Ms. Gill further explained that the project would also remove any inactive nests currently on the property to discourage nesting in trees identified for removal. She noted that ecologists and climbing arborists would visually inspect trees marked for removal for new nests and, if any are found, the Applicant would follow recommendations for relocating the nests. *Testimony of Ms. Gill.*
31. Civil Engineer Gina Brooks, of Core Design, Inc., testified about the stormwater management measures that would be implemented for the proposed development. She stated that the existing site conditions, as determined in the geotechnical report, are not suitable for infiltration and, therefore, the project would not lend itself well to low impact development (LID) techniques. Ms. Brooks explained that the proposed development would be required to detain stormwater drainage consistent with forested, predevelopment conditions in accordance with the requirements of the 2012 Department of Ecology Stormwater Management Manual for Western Washington, as amended in 2014, and, therefore, the proposed detention vault would withhold drainage and release runoff at a lower flow rate than currently exists. She stressed that the enhanced

stormwater treatment and detention system would not have any detrimental impacts on neighboring properties and would discharge to the City's existing tight line storm drainage system. *Testimony of Ms. Brooks.*

Additional Materials

32. The Hearing Examiner left the record open until January 25, 2022, to allow for the submission of additional comments on the proposal and to allow the Applicant to provide a response to any additional comments submitted. Kathleen Russell and Nancy Morris submitted written comments detailing their testimony provided at the hearing. Janet Way submitted a comment raising concerns that the Applicant's proposed stormwater management system would not comply with applicable stormwater design standards. Nancy Morris submitted a comment noting that other jurisdictions have more protective tree protection requirements, which mandate that new buildings be constructed around existing mature trees and recommending that the City adopt similar tree protection measures. Boni Biery submitted a comment opposing the project, noting her concerns about the proposed tree removal. *Oral Ruling of Hearing Examiner; Exhibits 25 through 29.*
33. The Applicant provided a response to the additional comments submitted, which note that the project would utilize on-site stormwater management best management practices (BMP) to the extent feasible as required by the 2014 DOE Stormwater Manual, that the project would specifically utilize required BMP related to post-construction soil quality and depth, and that other BMPs related to managing stormwater from roofs and other hard surfaces are not feasible for the site. *Exhibit 30.*

Staff Recommendation

34. Recommending that the Hearing Examiner forward to the City Council a recommendation of approval, City staff determined that, with conditions, the proposal would meet the requirements of the City code and would be consistent with the City Comprehensive Plan. *Exhibit 1, Staff Report, pages 13 through 18.*

CONCLUSIONS

Jurisdiction

The Hearing Examiner is granted jurisdiction to hear and make recommendations to the City Council for preliminary formal subdivisions under Chapter 2.15 SMC and SMC 20.30.060, Table 20.30.060.

Criteria for Review

Under SMC 20.30.410.B, the criteria for preliminary subdivision approval are:

1. Environmental.
 - a. Where environmental resources exist, such as trees, streams, geologic hazards, or wildlife habitats, the proposal shall be designed to fully implement the goals, policies, procedures and

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- standards of the critical areas regulations, Chapter 20.80 SMC, Critical Areas, and the tree conservation, land clearing, and site grading standards sections.
- b. The proposal shall be designed to minimize grading by using shared driveways and by relating street, house site and lot placement to the existing topography.
 - c. Where conditions exist which could be hazardous to the future residents of the land to be divided, or to nearby residents or property, such as floodplains, landslide hazards, or unstable soil or geologic conditions, a subdivision of the hazardous land shall be denied unless the condition can be permanently corrected, consistent with subsections (B)(1)(a) and (b) of this section, Chapter 20.80 SMC, Critical Areas, and Chapter 13.12 SMC, Floodplain Management.
 - d. Low impact development (LID) techniques shall be applied where feasible to minimize impervious areas, manage stormwater, and preserve on-site natural features, native vegetation, open space and critical areas.
2. Lot and Street Layout.
- a. Lots shall be designed to contain a usable building area. If the building area would be difficult to develop, the lot shall be redesigned or eliminated, unless special conditions can be imposed that will ensure the lot is developed consistent with the standards of this Code and does not create nonconforming structures, uses or lots.
 - b. Lots shall not front on primary or secondary highways unless there is no other feasible access. Special access provisions, such as shared driveways, turnarounds or frontage streets, may be required to minimize traffic hazards.
 - c. Each lot shall meet the applicable dimensional requirements of the Code.
 - d. Pedestrian walks or bicycle paths shall be provided to serve schools, parks, public facilities, shorelines and streams where street access is not adequate.
3. Dedications and Improvements.
- a. The City may require dedication of land in the proposed subdivision for public use.
 - b. Only the City may approve a dedication of park land.
 - c. In addition, the City may require dedication of land and improvements in the proposed subdivision for public use under the standards of Chapter 20.60 SMC, Adequacy of Public Facilities, and Chapter 20.70 SMC, Engineering and Utilities Development

Standards, necessary to mitigate project impacts to utilities, rights-of-way, and stormwater systems.

- i. Required improvements may include, but are not limited to, streets, curbs, pedestrian walks and bicycle paths, critical area enhancements, sidewalks, street landscaping, water lines, sewage systems, drainage systems and underground utilities.

4. Unit Lot Development.

- a. The provisions of this subsection apply exclusively to unit lot developments for single-family attached dwelling units or zero lot line developments in all zones in which these uses are permitted.
- b. Unit lot developments may be subdivided into individual unit lots. The development as a whole shall meet development standards applicable at the time the permit application is vested.
- c. As a result of the subdivision, development on individual unit lots may modify standards in SMC 20.50.020, Exception 2.
- d. Access easements, joint use and maintenance agreements, and covenants, conditions and restrictions identifying the rights and/or the homeowners' association shall be executed for use and maintenance of common garage, parking and vehicle access areas; on-site recreation; landscaping; underground utilities; common open space; exterior building facades and roofs of individual units; and other similar features, and shall be recorded with the King County Recorder's Office.
- e. Within the parent lot or overall site, required parking for a dwelling unit may be provided on a different unit lot than the lot with the dwelling unit, as long as the right to use that parking is formalized by an easement on the plat, to be recorded with King County Records and Licensing Services Division.
- f. The unit lot is not a separate buildable lot, and that additional development of the individual unit lots may be limited as a result of the application of development standards to the parent lot and shall be noted on the plat, to be recorded with King County Records and Licensing Services Division.
- g. The applicant shall record a covenant on the plat that states, "These units will be considered individual units and part of one structure that cannot be segregated from one another. A unit lot development is defined as one building or one structure in the International Building Code and International Fire Code and National Electrical Code."

SMC 20.30.410.B.

The state subdivision criteria, codified at Chapter 58.17 RCW, are as follows:

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A proposed subdivision and dedication shall not be approved unless the city, town, or county legislature body makes written findings that: (a) [a]ppropriate provisions are made for the public health, safety, and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and schoolgrounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school; and (b) the public use and interest will be served by the platting of such subdivision and dedication.

RCW 58.17.110(2).

The criteria for review adopted by the City Council are designed to implement the requirement of Chapter 36.70B RCW to enact the Growth Management Act. In particular, RCW 36.70B.040 mandates that local jurisdictions review proposed development to ensure consistency with City development regulations, considering the type of land use, the level of development, infrastructure, and the characteristics of development. *RCW 36.70B.040.*

Conclusions Based on Findings

1. **With conditions, the preliminary formal subdivision would make appropriate provisions for the public health, safety, and general welfare and for open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, and schools and school grounds, as required by RCW 58.17.110(2).** The property is designated Station Area 3 under the City Comprehensive Plan and is within the 145th Street Station Subarea. Development of medium density residential uses and increased housing choices are encouraged under this designation, and the area is currently undergoing increased redevelopment as it transitions from its historic low-density single-family residential character to a higher density transit-oriented residential neighborhood envisioned by the 145th Street Station Subarea Plan. The property is zoned Mixed-Use Residential 35' (MUR-35'). The proposed development would exceed the minimum required density for the MUR-35' zone and would comply with minimum hardscape and building setback development standards applicable to the overall site through application of the City's unit lot subdivision provisions.

Vehicular access to the proposed subdivision would be from two locations on North 148th Street and a single location on North 147th Street, with access to the individual townhome units provided by internal private drive aisles. The City Public Works Department reviewed the proposal and determined that it would provide adequate access to serve the development. The proposal would exceed minimum off-street parking requirements by providing 111 parking spaces within the individual unit garages. The Applicant would construct half street improvements along the property's frontages with Meridian Avenue North, North 147th Street, and North 148th Street that would include 8-foot sidewalks. All lots within the proposed subdivision would have pedestrian access to

the public sidewalk system, either directly or via a new shared walkway within the subdivision, which would ensure safe conditions for students walking to nearby schools or school bus stops. The City Engineer reviewed the Traffic Impact Analysis prepared for the proposal and determined that the Applicant would not be required to provide mitigation beyond the payment of traffic impact fees and the construction of required street frontage improvements.

Stormwater runoff from the site would be collected and conveyed to a stormwater vault for flow control and to a BioPod Biofilter for water quality treatment before discharging to the City's existing stormwater system. The City Public Works Director reviewed the proposed development and determined that it would comply with applicable stormwater management requirements, including requirements under the 2012 Department of Ecology Stormwater Manual for Western Washington, as amended in 2014. City Public Works Department Wastewater Utility staff reviewed the proposal and determined that sufficient sewer capacity is available to serve the subdivision. Seattle Public Utilities reviewed the proposed subdivision and issued a Water Availability Certificate. The Shoreline Fire Department reviewed the proposal for adequate emergency vehicle access, water pressure to the site, and proximity to fire hydrants and determined that the proposal is satisfactory, subject to conditions. The project would not be required to dedicate park land, and future development of the site with the townhome units would require the payment of park and fire impact fees. As detailed further in Conclusion 2, below, the proposed development would comply with the City's tree protection ordinance and would retain a number of existing mature trees on-site within a common open space tract.

Conditions, as detailed below, are necessary to ensure that the proposal satisfies all state subdivision criteria under RCW 58.17.110(2) and complies with all local, state, and federal code requirements. *Findings 1, 2, 6 – 34.*

2. **With conditions, the proposed preliminary formal subdivision would be consistent with environmental, lot and street layout, dedications and improvements, and unit lot development review criteria as required by SMC 20.30.410 regulations, considering land use type, development level, infrastructure, and development characteristics, such as development standards, as required by Chapter 58.17 RCW and Title 20 SMC.** The City analyzed the environmental impacts of the proposed development as required by SEPA and issued a Determination of Nonsignificance, which was not appealed. No critical areas or associated buffers were identified on or within 300 feet of the project site. The City provided reasonable notice and opportunity to comment on the proposed preliminary formal subdivision. The City received several comments on the proposal from members of the public, which largely raised concerns about the project's tree removal and replacement plan. Members of the public also raised concerns about the proposed density of the project impacting the existing character of the neighborhood and about the project's impacts to traffic, stormwater drainage, and pedestrian safety. The MUR-35' zone does not have a maximum density requirement

and requires a minimum density 12 dwelling units per acre. The proposed development would comply with the density standards for the MUR-35' zone by providing a residential density of 29 units per acre. Although the neighborhood has historically been characterized by single-family residential development, the proposed townhome development would be consistent with the planned growth for the area as outlined in the 145th Street Station Subarea Plan and implemented by the MUR-35' zoning designation. As discussed above in Conclusion 1, the proposed development would comply with all applicable stormwater management regulations and traffic concurrency requirements and would provide required street frontage improvements, which would include the installation of sidewalks to ensure pedestrian safety.

The overwhelming majority of comments on the proposal raised concerns about the Applicant's tree retention and replacement plan. Community displeasure, however, cannot be the basis of a permit denial. *Kenart & Assocs. v. Skagit Cy.*, 37 Wn. App. 295, 303, 680 P.2d 439, *review denied*, 101 Wn.2d 1021 (1984). Rather, the Hearing Examiner must review the proposal for compliance with governing regulations. SMC 20.50.350 provides minimum tree retention requirements and would require the Applicant to retain 20 percent of the existing significant trees on-site. The Applicant would exceed this requirement by retaining 27 percent of the significant trees on the property when accounting for the 16 significant trees identified for removal that are exempt from tree retention requirements under SMC 20.50.310.B.1. Moreover, even without this exception, the proposal would meet the minimum tree retention requirements by retaining 22 percent of the existing significant trees on-site. The proposal would also comply with the City's tree replacement requirement by planting 110 new trees on-site. The City Planning and Community Director approved the request to reduce the number of required replacement trees from 139 to 110, as permitted under SMC 20.50.360.C.b, after determining that the reduction would be necessary to ensure that the replacement trees would not disturb the critical root zones of retained trees and that the replacement trees would not be impacted from overcrowding and competition for water and sunlight. The Applicant's proposed tree removal and replacement plan would comply with all applicable requirements of the City code, and community concerns regarding the adequacy of the City's current tree regulations to protect existing tree canopy within the city of Shoreline should be directed to the City's legislative body.

The preliminary plat would provide development consistent with applicable development regulations. City staff determined that, with conditions, the proposal would be consistent with all applicable City, county, and state requirements, including the applicable Comprehensive Plan, municipal code, and development standards. The public interest would be served by the platting of the subdivision. As detailed above in Conclusion 1, conditions are necessary to ensure that the proposal meets all criteria required for plat approval. *Findings 1 – 34.*

RECOMMENDATION

Based on the preceding findings and conclusions, the Hearing Examiner recommends that the City Council **APPROVE** the application for a preliminary formal subdivision to subdivide 11 residential parcels totaling approximately 2.44 acres into 70 unit lots for single-family attached residences (townhomes), and associated improvements, at 2105, 2117, and 2123 North 148th Street; 2116, 2122, 2132, 2142, and 2150 North 147th Street; and 14704, 14710, and 14718 Meridian Avenue North, with the following conditions:⁵

1. The Applicant shall file for a Lot Merger to merge the eleven (11) existing lots. Development permits for the site, including but not limited to, clearing and grading permits, site development permits, right-of-way permits, and building permits, shall not be issued until the City has approved a Lot Merger for the site and the same has been recorded with the King County Recorder's Office. The Lot Merger must be approved and recorded prior to Final Plat approval.
2. The Applicant shall comply with all applicable provisions of the Shoreline Municipal Code, specifically SMC Title 20 Unified Development Code.
3. All existing and proposed restrictions, easements, tracts, and their purpose shall be clearly shown on the face of the final plat.
4. All utility easements for water service, sewer service, underground power, and telecommunications shall be noted on the face of the final plat.
5. A use and maintenance agreement shall be recorded, filed separately, or noted on the face of the final plat for all joint access and utility easements/tracts.
6. The stormwater facilities shall be complete and pass inspection prior to approval of the final plat, or the Applicant shall post suitable bond or surety to guarantee the completion of improvements within one year of approval of the final plat.
7. A stormwater declaration of covenant in a form acceptable to the City shall be recorded with the King County Recorder's Office prior to approval of the final plat, and the recording number shall be clearly noted on the face of the final plat. If the Applicant has posted a bond or surety, then the declaration of covenant shall be recorded on each lot shown on the final plat prior to release of the bond or surety. Or, in the alternate, covenant language in a form acceptable to the City shall be included on the face of the final plat.

⁵ Conditions include both legal requirements applicable to all developments as well as requirements to mitigate the specific impacts of this development.

8. A joint use and maintenance agreement identifying the rights and responsibilities of property owners within the final plat, or a homeowner's association, shall be executed for the maintenance and operation of the stormwater facilities shall be approved by the City prior to final plat approval, and the approved document shall be recorded with the King County Recorder's Office at the time the final plat is recorded. Or, in the alternative, joint use maintenance agreement language shall be included on the face of the final plat. If the declaration of covenant is used to outline the maintenance requirements, the recording number of the covenant must be stated on the final plat.
9. The right-of-way dedication(s) shall be recorded, and the recording number(s) shall be shown on the final plat.
10. All conditions for access and life safety, as required by Shoreline Fire Department, shall be met. One hydrant is required and spacing shall be within 500 feet from another hydrant. The proposed access roads must be a minimum 20 feet wide and marked as a fire lane with no parking allowed. Both shall be noted on the face of the final plat, and the improvements shall be completed prior to final plat approval.
11. All conditions of the water availability certificate shall be met:
 - a. Design and install approximately 135 feet of 8-inch ductile iron pipe water main in North 148th Street extending from the end of the existing 8-inch main to the east parcel boundary, including appurtenance(s).
 - b. If the proposed project changes after the Water Availability Certificate is certified, or if the current plan submitted to SPU does not detail the entire scope of the proposed project, water requirements may change, and a new Water Availability Certificate may be required.
 - c. Fire flow or other Fire Department requirements may alter water system needs at any time.
 - d. Water availability requirements will change if existing system cannot support desired water service.
12. All conditions set forth by City of Shoreline Public Works for new sewer connections shall be met:
 - a. Sanitary Sewer Developer Extension required to provide sewer service.
 - b. All materials and workmanship in connection with the installation of any sewers connected to the public sewer shall be as specified by City of Shoreline Public Works Department Engineering Development Manual (EDM) Division 4 Wastewater.
 - c. Wastewater easements will be required on City of Shoreline form. The easement shall be recorded prior to Final Plat approval, and it shall be clearly noted on the face of the Final Plat.

13. All new development shall be served with underground power and separate meters for each dwelling unit.
14. Tree protection shall be in place at time of pre-construction meeting as shown on approved plans for DEV20-1621. Tree protection shall remain in place until final inspection and shall not be removed except as outlined in the approved arborist report.
15. Pre-construction meeting required. Project arborist shall attend pre-construction meeting with city building inspector and project general contractor.
16. Project arborist shall be onsite for removal of hardscape adjacent to tree protection area on the southeast corner of the site.
17. Applicant shall provide city planner with monitoring reports (electronic, PDF file) from project arborist on retained trees as follows:
 - a. Start of construction (post-demolition, pre-site grading work)
 - b. Beginning of dry season (May), annually if construction spans more than one year
 - c. End of dry season (September), annually if construction spans more than one year
 - d. End of site grading and utility installation
18. Trees shall not be removed during bird nesting season, which stretches from the last week of February to the first week of August, unless the project ecologist is onsite to facilitate bird nest relocation. If a young bird is encountered and is unable to fly, the project ecologist shall contact the approved rehabilitation facility, PAWS in Lynnwood, WA.
19. Covenants, conditions, and restrictions identifying the rights and responsibilities of the property owner(s) and/or the homeowners' association shall be executed for the use and maintenance of vehicle access areas; walkway areas; solid waste storage and/or collection area(s); on-site common outdoor space; landscaping; underground utilities; exterior building facades and roofs of individual units; and other similar features shall be recorded, filed separately, or noted on the final plat. Regarding landscaping, the maintenance agreement shall specifically address maintenance responsibilities of required replacement trees and landscaping.
20. The square footage of each lot shall be clearly shown on the face of final plat.
21. All addresses shall be shown on the recorded final plat. Each unit shall be addressed as follows:
 - a. Lot 1 – 2119 N 148th St Unit A
 - b. Lot 2 – 2119 N 148th St Unit B
 - c. Lot 3 – 2119 N 148th St Unit C
 - d. Lot 4 – 2119 N 148th St Unit D
 - e. Lot 5 – 2119 N 148th St Unit E

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- f. Lot 6 – 2123 N 148th St Unit A
- g. Lot 7 – 2123 N 148th St Unit B
- h. Lot 8 – 2123 N 148th St Unit C
- i. Lot 9 – 2123 N 148th St Unit D
- j. Lot 10 – 2121 N 148th St Unit A
- k. Lot 11 – 2121 N 148th St Unit B
- l. Lot 12 – 2121 N 148th St Unit C
- m. Lot 13 – 2117 N 148th St Unit E
- n. Lot 14 – 2117 N 148th St Unit D
- o. Lot 15 – 2117 N 148th St Unit C
- p. Lot 16 – 2117 N 148th St Unit B
- q. Lot 17 – 2117 N 148th St Unit A
- r. Lot 18 – 2116 N 147th St Unit A
- s. Lot 19 – 2116 N 147th St Unit B
- t. Lot 20 – 2116 N 147th St Unit C
- u. Lot 21 – 2116 N 147th St Unit D
- v. Lot 22 – 2116 N 147th St Unit E
- w. Lot 23 – 2126 N 147th St Unit A
- x. Lot 24 – 2126 N 147th St Unit B
- y. Lot 25 – 2126 N 147th St Unit C
- z. Lot 26 – 2126 N 147th St Unit D
- aa. Lot 27 – 2126 N 147th St Unit E
- bb. Lot 28 – 2150 N 147th St Unit A
- cc. Lot 29 – 2150 N 147th St Unit B
- dd. Lot 30 – 2150 N 147th St Unit C
- ee. Lot 31 – 2150 N 147th St Unit D
- ff. Lot 32 – 2150 N 147th St Unit E
- gg. Lot 33 – 2150 N 147th St Unit F
- hh. Lot 34 – 2150 N 147th St Unit G
- ii. Lot 35 – 2150 N 147th St Unit H
- jj. Lot 36 – 2142 N 147th St Unit E
- kk. Lot 37 – 2142 N 147th St Unit D
- ll. Lot 38 – 2142 N 147th St Unit C
- mm. Lot 39 – 2142 N 147th St Unit B
- nn. Lot 40 – 2142 N 147th St Unit A
- oo. Lot 41 – 2132 N 147th St Unit E
- pp. Lot 42 – 2132 N 147th St Unit D
- qq. Lot 43 – 2132 N 147th St Unit C
- rr. Lot 44 – 2132 N 147th St Unit B
- ss. Lot 45 – 2132 N 147th St Unit A
- tt. Lot 46 – 2122 N 147th St Unit F
- uu. Lot 47 – 2122 N 147th St Unit E
- vv. Lot 48 – 2122 N 147th St Unit D

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- ww. Lot 49 – 2122 N 147th St Unit C
 - xx. Lot 50 – 2122 N 147th St Unit B
 - yy. Lot 51 – 2122 N 147th St Unit A
 - zz. Lot 52 – 2112 N 147th St Unit F
 - aaa. Lot 53 – 2112 N 147th St Unit E
 - bbb. Lot 54 – 2112 N 147th St Unit D
 - ccc. Lot 55 – 2112 N 147th St Unit C
 - ddd. Lot 56 – 2112 N 147th St Unit B
 - eee. Lot 57 – 2112 N 147th St Unit A
 - fff. Lot 58 – 14704 Meridian Ave N Unit D
 - ggg. Lot 59 – 14704 Meridian Ave N Unit C
 - hhh. Lot 60 – 14704 Meridian Ave N Unit B
 - iii. Lot 61 – 14704 Meridian Ave N Unit A
 - jjj. Lot 62 – 14718 Meridian Ave N Unit E
 - kkk. Lot 63 – 14718 Meridian Ave N Unit D
 - lll. Lot 64 – 14718 Meridian Ave N Unit C
 - mmm. Lot 65 – 14718 Meridian Ave N Unit B
 - nnn. Lot 66 – 14718 Meridian Ave N Unit A
 - ooo. Lot 67 – 14728 Meridian Ave N Unit D
 - ppp. Lot 68 – 14728 Meridian Ave N Unit C
 - qqq. Lot 69 – 14728 Meridian Ave N Unit B
 - rrr. Lot 70 – 14728 Meridian Ave N Unit A
22. The subdivision shall comply with tree conservation, land clearing, and site grading standards specified in SMC Chapter 20.50, Subchapter 5, specifically by retaining nineteen (19) onsite significant trees and complying with the tree protection conditions numbers 14-18.
23. A Covenant shall be recorded either by stating it on the face of the Final Plat or by filing a Declaration of Covenant with King County Recorder's Office prior to Final Plat approval. The recording number of this Declaration shall be noted on the plat. The language of the covenant shall be:
- “Each unit lot is not a separate buildable lot. Additional development of the individual unit lots may be limited as a result of the application of development standards to the parent lot. These units will be considered individual units and part of one structure that cannot be segregated from one another.”
24. The following note shall be placed on the face of the Final Plat:
- “This subdivision is approved based on SMC 20.30.410.D Unit Lot Development standards and Exception (#2) to Table 20.50.020(1) that

allows modifications to certain dimensional standards for unit lot developments. Any future development of the individual lots created by this subdivision may be limited as a result of the application of development standards.”

25. Required street frontage improvements shall include the following:
- a. Along Meridian Avenue N, from the centerline of the ROW, provide a 5-foot half of a center turn lane, 11-foot travel lane, 7-foot bike lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. Pedestrian scale lighting is required. ADA compliant curb ramps are required for the legal crossings across Meridian Avenue N at N 147th St and N 148th St
 - b. Along N 147th Street, from the centerline of the ROW, provide a 10-foot travel lane, 7-foot parking lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. A reduced throat of 12-feet measured from the ROW centerline shall be provided at the intersection to Meridian Ave North, across the two vehicular accesses, and along those areas where conflicts would exist between proposed storm drainage and existing utilities if full width installed. ADA compliant curb ramps are required for the legal crossing across North 147th St at Meridian Ave North.
 - c. Along North 148th Street, from the centerline of the ROW, provide a 10-foot travel lane, 7-foot parking lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. A reduced throat of 12-feet measured from the ROW centerline shall be provided at the intersection to Meridian Ave North, across the two vehicular accesses, and along those areas where conflicts would exist between proposed storm drainage and existing utilities if full width installed. ADA compliant curb ramps are required for the legal crossing across North 148th St at Meridian Ave North.

All required street frontage improvements shall be installed by the Applicant prior to final plat approval. Alternatively, the Applicant may post a bond or other surety for frontage improvements, as provided in SMC 20.30.440, prior to final plat approval.

RECOMMENDED this 8th day of February 2022.



ANDREW M. REEVES
Hearing Examiner
Sound Law Center

PLN20-0139 Pulte 5 Degrees

Preliminary Formal Subdivision

List of Exhibits

<i>EXHIBIT</i>	<i>DOCUMENT NAME</i>
<i>Exhibit 1</i>	Staff Report, prepared 11 January 2022
<i>Exhibit 2</i>	Application, received 23 September 2020
<i>Exhibit 3</i>	Boundary/Topographic Survey, prepared 31 July 2020
<i>Exhibit 4</i>	Vicinity Map, received 23 September 2020
<i>Exhibit 5a</i>	SEPA DNS, issued 22 November 2021
<i>Exhibit 5b</i>	Environmental Checklist, dated 23 April 2021
<i>Exhibit 5c</i>	Traffic Impact Analysis, dated 25 March 2021
<i>Exhibit 5d</i>	Arborist Report, dated 26 August 2021
<i>Exhibit 5e</i>	Critical Area Reconnaissance Report, dated 15 March 2021
<i>Exhibit 5f</i>	Geotechnical Report, dated 13 December 2019
<i>Exhibit 5g</i>	Storm Drainage Report, dated 27 August 2021
<i>Exhibit 5h</i>	Phase I Environmental Assessment, dated 23 December 2019
<i>Exhibit 5i</i>	Statement on UST, dated 1 February 2021
<i>Exhibit 6</i>	Neighborhood Meeting Notice, dated 1 April 2020 (typo, should be 2021)
<i>Exhibit 7</i>	Neighborhood Meeting Report, received September 2020
<i>Exhibit 8a</i>	Notice of Application, dated 22 October 2020
<i>Exhibit 8b</i>	Notice of Application, dated 23 November 2020
<i>Exhibit 8c</i>	Notice of Application, dated 4 December 2020
<i>Exhibit 9</i>	Notice of Public Hearing, dated 3 January 2022
<i>Exhibit 10</i>	Public Comment, dated 27 October 2020 to 22 July 2021
<i>Exhibit 11</i>	Agency Comment, dated 11 December 2020
<i>Exhibit 12</i>	Tree Retention Calculation Worksheet, received 2 November 2021
<i>Exhibit 13</i>	Tree Replacement Exception Letter, dated 10 November 2021
<i>Exhibit 14</i>	Site Plan, prepared 27 August 2021
<i>Exhibit 15</i>	Road and Grading Plan, prepared 27 August 2021

<i>Exhibit 16</i>	Preliminary Plat, prepared 13 August 2021
<i>Exhibit 17</i>	Project Reviews Report, generated 4 January 2022
<i>Exhibit 18</i>	Architectural Site Plan, prepared 19 August 2021
<i>Exhibit 19</i>	Right-of-Way Plan, prepared 13 August 2021
<i>Exhibit 20</i>	Water Availability Certificate, Seattle Public Utilities (SPU), certified 2 September 2020
<i>Exhibit 21</i>	Revision to Exhibit 17
<i>Exhibit 22</i>	Public Comment
<i>Exhibit 23</i>	Memorandum from R. Olsen
<i>Exhibit 24</i>	PLN20-0139 Staff Presentation
<i>Exhibit 25</i>	Kathleen Russell Oral Comment
<i>Exhibit 26</i>	Nancy Morris Oral Comment
<i>Exhibit 27</i>	Janet Way Comment IV
<i>Exhibit 28</i>	Nancy Morris
<i>Exhibit 29</i>	Boni Biery
<i>Exhibit 30</i>	Response to Comments from Applicant

Staff Report to Hearing Examiner
Preliminary Formal Subdivision
File No. PLN20-0139, Pulte 5 Degrees

A. APPLICATION

Applicant: Pulte Homes of Washington, Inc. (**Exhibit 2, Application**)

Property Owners:

Pulte Homes of Washington, Inc.: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, and 14710 Meridian Ave N

Inland Empire Residential Resources:(14718 Meridian Ave N

Owner's Authorized Agent: Jim Sprott, Pulte Homes of Washington, Inc.

Application for a Preliminary Formal Subdivision to subdivide eleven (11) residential parcels into seventy (70) unit lots for single-family attached residences (townhomes). This subdivision is being reviewed concurrently with building, site development, and right-of-way permits under the Consolidated Subdivision process set forth in Shoreline Municipal Code (SMC) 20.30.410(A)(3).

B. BACKGROUND

1. SITE CHARACTERISTICS¹

- 1.1 Site addresses: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N
- 1.2 Site tax parcel numbers: 7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060
- 1.3 The Site is a flag shaped property of approximately 106,291 square feet (2.44 acres).
- 1.4 The Site has frontage on three rights-of-way, starting with N 148th Street where three (3) parcels have frontage on the south side, then continuing west to Meridian Avenue N where four (4) parcels have frontage on the east side, and finally wrapping around to N 147th Street where six (6) parcels have frontage on the north side (**Exhibit 3, Boundary/Topographic Survey**).
- 1.5 The Site currently contains eleven single-family residences, two detached garages, and three small accessory structures. Demolition permits have been issued to remove these structures.
- 1.6 The Site generally slopes down to the north, with an approximate 14-foot change in elevation.

¹ For the purpose of this Staff Report, "Site" means the eleven tax parcels collectively.

- 1.7 There are no critical areas or critical area buffers on the Site.

2. COMPREHENSIVE PLAN LAND USE DESIGNATION AND ZONING

- 2.1 The Comprehensive Plan land use designation for the Site is Station Area 3.
- 2.2 The Site is zoned Mixed-Use Residential 35' (MUR-35') which requires a minimum density of 12 units per acre, or a minimum of 30 units for this Site.
- 2.3 Pursuant to SMC 20.40.120, single-family attached residential dwellings are an allowed use in MUR-35'.

3. NEIGHBORHOOD CHARACTERISTICS

- 3.1 The Site is located on the east side of Meridian Ave N, between N 147th and 148th Streets in the Parkwood neighborhood (**Exhibit 4, Vicinity Map**).
- 3.2 Meridian Avenue North is classified as a Minor Arterial and N 147th and 148th Streets are classified as Local Secondary streets.
- 3.3 The adjacent parcels to the east are zoned MUR-35'. To the west, across Meridian Ave N, the properties are zoned R-6. To the north, across N 148th St, the properties are zoned R-6; these properties are scheduled to be rezoned by the City in the year 2033 to MUR-35' (Phase 2 of the 145th Street Station Sub-Area Plan). To the south, across N 147th St, the properties are zoned MUR-45'.
- 3.4 The Parkwood neighborhood is located along the southern border of the City at 145th Street, and stretches north up to 160th Street, between Aurora Ave N and I-5. It was developed as a low-density residential area in the 1940s and 1950s. Historically, the buildings were mostly one to two stories in height and their footprints typically covered only a small portion of their sites. However, Parkwood has experienced redevelopment in recent years of higher density three-story townhouse redevelopments since portions of it were included within the City's 145th Street Station Subarea and the MUR zoning was established in 2016.

4. REGULATORY AUTHORITY

- 4.1 SMC 20.30.060 requires Preliminary Formal Subdivisions to be processed as a quasi-judicial or "Type-C" actions. The Hearing Examiner is to hold an open record public hearing and submit a recommendation, supported by findings and conclusions, to the City Council, which will make the final decision on the application.
- 4.2 Applicable regulatory controls set forth in the SMC include:
- SMC 20.30 – Procedures and Criteria
(Preliminary Subdivisions – SMC 20.30.410 and Subchapter 8 Environmental Procedures)
 - SMC 20.40 – Zoning and Use Provisions
(Residential Uses – SMC 20.40.120)
 - SMC 20.50 – General Development Standards
(Dimensional and Density Standards – SMC 20.50.020)
 - SMC 20.60 – Adequacy of Public Facilities
 - SMC 20.70 – Engineering and Utilities Development Standards
- 4.3 RCW 58.17.110 Approval/Disapproval of Subdivisions

5. ENVIRONMENTAL

- 5.1 A 70-lot subdivision and 70-unit residential development is subject to environmental review under SEPA.
- 5.2 The City of Shoreline is acting as Lead Agency for SEPA review and environmental determination. The City issued a SEPA Determination of Nonsignificance (DNS) on November 22, 2021. **(Exhibit 5a, SEPA DNS)**. The applicant submitted a completed environmental checklist **(Exhibit 5b)** and referenced documents, which included a traffic impact analysis **(Exhibit 5c)**, arborist report **(Exhibit 5d)**, critical area reconnaissance report **(Exhibit 5e)**, geotechnical report **(Exhibit 5f)**, storm drainage report **(Exhibit 5g)**, Phase I environmental assessment **(Exhibit 5h)**, and a statement on removing heating oil underground storage tanks **(Exhibit 5i)**.

6. PROCEDURAL HISTORY

- 6.1 A Pre-application Meeting for the subdivision was held on March 10, 2020.
- 6.2 A Neighborhood Meeting was held on April 1, 2020 **(Exhibits 6 and 7, Neighborhood Meeting Notice and Neighborhood Meeting Report)**.
- 6.3 Application for Preliminary Formal Subdivision (File No. PLN20-0139) was submitted on September 23, 2020.
- 6.4 The application was determined to be complete on October 19, 2020.
- 6.5 Three Notices of Application were issued for this Site:
 - Issued on October 22, 2020, with the comment period ending November 5, 2020. **(Exhibit 8a, Notice of Application)** This notice erroneously stated that the project qualified as a Planned Action consistent with Ordinance No. 752 Planned Action for the 145th Street Station Subarea.
 - A corrected notice issued on November 23, 2020, with the comment period ending December 7, 2020. **(Exhibit 8b, Notice of Application)** The required sign was not posted.
 - A corrected notice issued on December 4, 2020, with the comment period ending December 18, 2020. **(Exhibit 8c, Notice of Application)**
- 6.6 A Notice of Public Hearing was issued on January 3, 2022, for the Hearing Examiner open record public hearing on January 18, 2022 **(Exhibit 9, Notice of Public Hearing)**.

7. PUBLIC AND AGENCY COMMENT

- 7.1 Public Comment – Public comments were received from October 27, 2020, which was during the first Notice of Application comment period, to July 22, 2021. **(Exhibit 10, Public Comment)** The primary concerns raised in the comments were regarding increase in density, tree removal and protection, parking, and traffic. The applicant has adequately addressed these concerns as detailed below:
 - *Increase in Density:* The Site currently consists of a detached single-family residence on each lot and associated accessory structures. This was the typical low-density development pattern for this area until September 26, 2016, when it was rezoned to MUR-35' to implement the 145th Street Station

Subarea Plan. The 145th Street Station Subarea Plan outlines the vision for this area as one attracting a vibrant mix of land uses that offer additional housing choices and redevelopment that increases the number of people living in proximity to the light rail station to support the region's investment in high-capacity transit. MUR-35' does not have a maximum density but has a minimum density of 12 units per acre. This Site totals 106,291 square feet, which means a minimum of thirty (30) dwelling units are required by the Development Code. Seventy (70) units are proposed, which is a density of twenty-nine (29) units per acre. The original proposal was for 72 units; this was reduced to 70 units to provide better protection of trees to be retained. Since the SMC does not specify a maximum density, only minimum, how many units fit on a site depends on meeting other code requirements such as dimensional standards (e.g., minimum setbacks, maximum height), design standards, tree retention, landscaping, off-street parking, and stormwater management. While the City acknowledges the concerns of the public of the change from low-density to a higher-density development pattern, the decision to not adopt a maximum density for the MUR zones occurred in 2016 after a multi-year public process.

- *Tree Removal:* Twenty-four (24) of the twenty-six (26) public comments received contained concerns about tree removal, relating to overall loss of canopy and the various functions of trees, including stormwater control, air quality, and wildlife habitat.
 - Onsite Trees: SMC 20.50.350(B) requires retention of 20% of significant sized trees since there are no critical areas or buffers on the Site. The Site contains 86 significant sized trees, 67 of which are proposed for removal. Of these 67 trees, 16 are exempt from replacement and retention requirements, which means 27% of significant sized trees will be retained ($19 / 70 = 0.2714$). SMC 20.50.360(C) requires 139 replacement trees. The applicant has requested, and been granted, a reduction as allowed by Exception SMC 20.50.360(C)(b), to 110 replacement trees.
 - Right-of-Way (ROW) Trees: Twelve (12) ROW trees will be removed: two (2) along Meridian Ave N, six (6) along N 147th St, and four (4) along N 148th St. SMC 12.30.040(B)(4) and 20.50.360(C) require 20 replacement street trees; 32 street trees are proposed by the applicant. Eleven (11) will be planted along the Meridian Ave N frontage, 15 along the N 147th St frontage, and six (6) along the N 148th St frontage.
 - Permit Conditions (DEV20-1621): To address concerns about tree removal and retention, pursuant to SMC 20.50.330(C) the following conditions are placed on the permit:
 - Tree protection shall be in place at time of pre-construction meeting as shown on approved plans. Tree protection shall remain in place until final inspection and shall not be removed except as outlined in the approved arborist report.
 - Pre-construction meeting required. Project arborist shall attend pre-construction meeting with city building inspector and project general contractor.

- Project arborist shall be onsite for removal of hardscape adjacent to tree protection area on the southeast corner of the site.
- Applicant shall provide city planner with monitoring reports (electronic, PDF file) from project arborist on retained trees as follows:
 - Start of construction (post-demolition, pre-site grading work)
 - Beginning of dry season (May), annually if construction spans more than one year
 - End of dry season (September), annually if construction spans more than one year
 - End of site grading and utility installation
- Trees shall not be removed during bird nesting season, which stretches from the last week of February to the first week of August, unless the project ecologist is onsite to facilitate bird nest relocation. If a young bird is encountered and is unable to fly, the project ecologist shall contact the approved rehabilitation facility, PAWS in Lynnwood, WA.
- *Parking/Traffic:* SMC 20.50.390 requires one (1) parking space for each dwelling unit or a total of 70 spaces for the development. The proposed project will include 111 parking spaces in individual unit garages, 77 of which are standard size (8.5 feet wide by 20 feet long) and 34 of which are compact size (8 feet wide by 16 feet long). This proposal exceeds required parking by 41 parking spaces. The development is located near two King County Metro bus lines, Route 346 on Meridian Ave N and Route 304 on NE 145th St. Route 346 runs from the Northgate Transit Center to the Aurora Village Transit Center. Route 304 runs from the Northgate Transit Center to the Shoreline Park and Ride. The Site is approximately one-third of a mile from the 148th Street Light Rail Station, and pedestrian mobility to and from the station will be greatly improved by the planned 148th Street bridge connection over Interstate 5. The City Traffic Engineer has completed a review of the applicant's Transportation Impact Analysis and concluded that neither the SMC nor the Engineering Development Manual required additional mitigation measures.

7.2 Agency Comment – One comment was received from the Puget Sound Clean Air Agency (PSCAA) during the Notice of Application comment periods. PSCAA commented that any project involving demolition is subject to PSCAA regulations and outlined applicable regulations with a website link. **(Exhibit 11, Agency Comment)**

C. STAFF ANALYSIS

8. PRELIMINARY SUBDIVISION REVIEW CRITERIA (SMC 20.30.410)

The following criteria were used to review the proposed subdivision:

8.1 SMC 20.30.410(B)(1): Environmental:

Criterion (a): Where environmental resources exist, such as trees, streams, geologic hazards, or wildlife habitats, the proposal shall be designed to fully

implement the goals, policies, procedures and standards of the critical areas regulations, Chapter 20.80 SMC, Critical Areas, and the tree conservation, land clearing, and site grading standards sections.

Staff Analysis: No critical areas or buffers exist on the Site. As proposed, the subdivision will comply with tree conservation (see Section 9.2 below), land clearing and site grading standards specified in SMC Chapter 20.50, Subchapter 5. There are eighty-six (86) significant trees existing on the Site. Significant trees range in measurement from 8.5 to 44.0 inches in diameter at breast height (DBH). Onsite significant trees include a variety of species: Alaskan cedar, Bigleaf maple, Cherry plum, Douglas-fir, Flowering cherry, Grand fir, Norway spruce, Pacific dogwood, Western hemlock, Western redcedar, and Western yew. Sixty-seven (67) significant trees are proposed for removal and nineteen (19) are proposed for retention. The trees proposed for retention are Alaskan cedar (1), Douglas-fir (16), Norway spruce (1), and Western redcedar (1). Per SMC 20.50.310(B), sixteen (16) significant trees under 30 inches DBH are exempt from retention and replacement requirements. Once the 16 partially exempt trees under 30 inches DBH are removed from the calculation, 27 percent of significant sized trees will be retained ($19 / 70 = 0.2714$), more than the minimum retention requirement of 20 percent. The code requires one-hundred and thirty-nine (139) replacement trees. The applicant has requested, and been granted, a reduction as allowed by Exception SMC 20.50.360(C)(b), to one-hundred and ten (110) replacement trees. **(Exhibits 5d, 12, and 13, Arborist Report, Tree Retention Calculation Worksheet and Tree Replacement Exception Letter)**

Criterion (b): The proposal shall be designed to minimize grading by using shared driveways and by relating street, house site and lot placement to the existing topography.

Staff Analysis: The existing topography generally slopes to the north. Proposed townhome units are oriented both north-south and east-west. Where grades are more substantial in the north-south direction, townhomes oriented north-south step between units to more closely mimic existing topography. For some of the townhomes oriented east-west, grade is taken up between the front and back of units. The buildings are elevated to adhere to the maximum building height limits which are governed by the existing topography.

The layout of the development maximizes the units accessing common drive aisles. With the exception of the access at N 147th Street and the east access at N 148th Street, unit accesses are located on both sides of the interior drive aisles. Drive aisles will be graded to meet the Engineering Development Manual while attempting to minimize changes to existing topography. **(Exhibits 14 and 15, Site Plan and Road and Grading Plan).**

Criterion (c): Where conditions exist which could be hazardous to the future residents of the land to be divided, or to nearby residents or property, such as floodplains, landslide hazards, or unstable soil or geologic conditions, a subdivision of the hazardous land shall be denied unless the condition can be

permanently corrected, consistent with subsections (B)(1)(a) and (b) of this section, Chapter 20.80 SMC, Critical Areas, and Chapter 13.12 SMC, Floodplain Management.

Staff Analysis: There are no existing natural hazardous conditions on the Site.

Criterion (d): Low impact development (LID) techniques shall be applied where feasible to minimize impervious areas, manage stormwater, and preserve on-site natural features, native vegetation, open space and critical areas.

Staff Analysis: LID techniques and stormwater requirements are reviewed under the 2014 Department of Ecology (DOE) Stormwater Manual. The Public Works Department has indicated the proposed subdivision and associated site development shall conform to the stormwater requirements of the DOE Manual as mandated by the City's Engineering Development Manual. Construction permits have been reviewed to ensure compliance with applicable requirements.

8.2 SMC 20.30.410(B)(2): Lot and Street Layout

Criterion (a): Lots shall be designed to contain a usable building area. If the building area would be difficult to develop, the lot shall be redesigned or eliminated, unless special conditions can be imposed that will ensure the lot is developed consistent with the standards of this Code and does not create nonconforming structures, uses or lots.

Staff Analysis: The lots will be platted in a linear manner, with the majority oriented east-west and the rest oriented north-south. Lots 1-5 will be oriented east-west facing N 148th Street; Lots 6-12 will be oriented north-south along one of the eastern property boundaries; Lots 13-17 will be oriented east-west just to the south of Lots 1-5; Lots 18-35 will be oriented east-west just to the north of Lots 36-57; Lots 36-57 will be oriented east-west facing N 147th Street; and Lots 58-70 will be oriented north-south facing Meridian Avenue N (lots 58-70). There are two tracts, Tract A is an access tract for vehicular circulation, and Tract B is common outdoor space. Each proposed lot is rectangular in shape, containing the necessary footprint for an attached single-family home and a portion of landscaping, walkways and driveways into private garages. Because this is a unit lot subdivision, redevelopment of individual lots will be limited and, a covenant shall be noted on the face of the final plat (see Section 9.4, Criteria E). **(Exhibit 16, Preliminary Plat).**

Criterion (b): Lots shall not front on primary or secondary highways unless there is no other feasible access. Special access provisions, such as shared driveways, turnarounds or frontage streets, may be required to minimize traffic hazards.

Staff Analysis: Thirteen (13) lots have frontage on Meridian Avenue N, which is a Minor Arterial; six (6) lots have frontage on N 148th Street and twenty-two (22) lots have frontage on N 147th Street, both of which are Local Secondary streets. There are three vehicle access points, two from N 148th Street and one from N 147th Street, so there is no vehicular

access from Meridian Ave N, which has the highest classification of the three streets abutting this proposal (**Exhibit 14, Site Plan**). Both the Shoreline Fire Department and Public Works Departments have approved the access as proposed; all three access points connect in a looping private access drive system, so no vehicle turnaround is required for this subdivision, per Section 12.6(A) of the Engineering Development Manual (**Exhibit 17, Project Reviews Report**).

Criterion (c): Each lot shall meet the applicable dimensional requirements of the Code.

- 8.3 Staff Analysis: SMC Table 20.50.020(2) does not establish a minimum lot width and area for the MUR-35' zoning district. Per Footnote 2 of that Table, standards such as setbacks and hardscape may be modified for individual lots in zero lot line developments, provided the overall site meets the dimensional standards. A unit lot subdivision is the subdivision of land for single-family attached dwelling units, in the form of unit lot development, mixed single-family attached development, or zero lot line development in all zones in which these uses are permitted (SMC 20.20.050). Unit lot subdivisions consist of the parent lot, which is the entire Site, and must meet the dimensional standards in SMC Table 20.50.020(2), and the individual unit lots, which are the "child" lots that are not required to meet the dimensional standards in SMC Table 20.50.020(2). The unit lot boundaries for this subdivision will include each unit footprint, and a portion of landscaping, walkways and driveways into private garages, giving the individual lots setbacks ranging from 0 feet to 14 feet and from 68% to 97% lot coverage. The parent lot meets the dimensional requirements as identified in Section 9 below. The maximum hardscape for the site overall will be under the 85% required under SMC Table 20.50.020(2) (**Exhibits 16 and 18, Preliminary Plat and Architectural Site Plan**).

Densities and Dimensions in the MUR-35' Zone (SMC 20.50.020)

Standard	Regulation	Parent Lot
Base Density	N/A	N/A
Min. Density	12 du/acre 30 units	29 du/acre 70 units
Min. lot width	N/A	N/A
Min. lot area	N/A	N/A
Min. front yard setback	0 ft. from Meridian Ave N (Arterial Street) 10 ft. from N 147 th & 148 th Streets (Non- Arterial Streets)	3.91 ft. from Meridian Ave N (Arterial Street) 10 ft. from N 147 th & 148 th Streets (Non-Arterial Streets)
Min. side yard setbacks	5 ft.	12.25 ft. (Northeast Side) 10.83 ft. (Southeast Side) 14 ft. (North Side)

Standard	Regulation	Parent Lot
Min. rear yard setback	5 ft.	N/A
Base height	35 ft.	28.84 ft. to 34.74 ft.
Max. building coverage	N/A	N/A
Max. impervious surface	85%	81%

Per SMC Table 20.50.020(2), Footnote 2, except for density and height, all these standards may be modified for unit lot and zero lot line developments for internal lots only.

Criterion (d): Pedestrian walks or bicycle paths shall be provided to serve schools, parks, public facilities, shorelines and streams where street access is not adequate.

Staff Analysis: Improvements to street frontage, including new sidewalks along the Site's frontages with Meridian Avenue N and N 147th and 148th Streets, are required as a condition of approval. The lots with street frontage will have direct pedestrian access from the public sidewalk to the front entry of each unit, and the remainder that do not have street frontage will be accessed via shared walkways that connect to the public sidewalk. To the west across Meridian Avenue N about one block to the north is the Evergreen School, a Kindergarten through Grade 8 private school. There are public sidewalks on both sides of the street along Meridian Avenue N and the application is required install frontage improvements as previously noted (**Exhibits 14 and 18, Site Plan and Architectural Site Plan**).

8.4 **SMC 20.30.410(B)(3): Dedications and Improvements**

Criterion (a): The City may require dedication of land in the proposed subdivision for public use.

Staff Analysis: The proposal requires dedication of a ROW easement of 6.5 feet on Meridian Avenue N and of 0.5 feet on both N 147th and 148th Streets. The ROW easements are required to be recorded prior to issuance of the associated ROW permit and are also recommended as a condition of approval of this preliminary formal subdivision. As of the date of writing this report the applicant was in the final stages of having the easements recorded.

Criterion (b): Only the City may approve a dedication of park land.

Staff Analysis: No dedication of park land is required or proposed. Future development of the site with housing units will require the payment of park impact fees pursuant to SMC Chapter 3.70.

Criterion (c): In addition, the City may require dedication of land and improvements in the proposed subdivision for public use under the standards of Chapter 20.60 SMC, Adequacy of Public Facilities, and Chapter 20.70 SMC, Engineering and Utilities Development Standards, necessary to mitigate project

impacts to utilities, rights-of-way, and stormwater systems. Required improvements may include, but are not limited to, streets, curbs, pedestrian walks and bicycle paths, critical area enhancements, sidewalks, street landscaping, water lines, sewage systems, drainage systems and underground utilities.

Staff Analysis: Improvements are required as a condition of approval within the Meridian Avenue N and 147th and 148th Streets rights-of-way adjacent to the site. All required improvements are pursuant to the 2020 Engineering Development Manual

Along Meridian Avenue N, from the centerline of the street, these improvements consist of a 5-foot half of a center turn lane, 11-foot travel lane, 7-foot bike lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. Pedestrian scale lighting is required. ADA compliant curb ramps are required for the legal crossings across Meridian Avenue N at N 147th St and N 148th St. **(Exhibits 14 and 19, Site Plan and Right-of-Way Plan).**

Along N 147th Street, from the centerline of the street, provide a 10-foot travel lane, 7-foot parking lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. A reduced throat of 24-feet is required on N 147th St at Meridian Ave N. ADA compliant curb ramps are required for the legal crossing across N 147th St at Meridian Ave N. **(Exhibits 14 and 19, Site Plan and Right-of-Way Plan).**

Along N 148th Street, from the centerline of the street, provide a 10-foot travel lane, 7-foot parking lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. A reduced throat of 24-feet is required on N 148th St at Meridian Ave N. ADA compliant curb ramps are required for the legal crossing across N 148th St at Meridian Ave N. **(Exhibits 14 and 19, Site Plan and Right-of-Way Plan).**

Future development of the site with housing units will require the payment of transportation impact fees pursuant to SMC 3.80.

8.5 SMC 20.30.410(B)(4): Unit Lot Subdivision

This subdivision is a unit lot development with 70 proposed lots.

Criterion (b): Unit lot developments may be subdivided into individual unit lots. The development as a whole shall meet development standards applicable at the time the permit application is vested.

Staff Analysis: For vesting purposes, this application was filed on September 23, 2020, and deemed complete on October 19, 2020. The 70 lots proposed to be created by the proposed subdivision will be structurally independent fee-simple lots for individual townhome units. For the overall Site, all development standards, as noted in Sections 9, 10, and 11 of this report, are being met.

Criterion (c): As a result of the subdivision, development on individual unit lots may modify standards in SMC 20.50.020, Exception 2.

Staff Analysis: The individual unit lots in the proposed subdivision have modified setback and hardscape coverage requirements. The individual lots setbacks range from zero feet to 14 feet and from 68% to 97% lot coverage (**Exhibits 16 and 18, Preliminary Plat and Architectural Site Plan**). However, the Site overall meets the minimum setback and hardscape requirements not subject to SMC Table 20.50.020(2), Exception 2. (**Exhibit 16, Preliminary Plat**).

Criterion (d): Access easements, joint use and maintenance agreements, and covenants, conditions and restrictions identifying the rights and/or the homeowners' association shall be executed for use and maintenance of common garage, parking and vehicle access areas; on-site recreation; landscaping; underground utilities; common open space; exterior building facades and roofs of individual units; and other similar features, and shall be recorded with the King County Recorder's Office.

Staff Analysis: A shared access and utilities tract (Tract A) and a shared outdoor common space tract (Tract B) will be established as part of this subdivision. At the applicant's discretion, each unit lot may have an undivided interest in Tracts A and B or a homeowner's association may be formed for ownership of Tracts A and B. Easements are also needed for shared walkways that traverse individual unit lot lines. All covenants, restrictions, and responsibilities of property owners are required to be recorded prior to approval of the final plat, or, in the alternative, shown on the face of the final plat.

Criterion (e): Within the parent lot or overall site, required parking for a dwelling unit may be provided on a different unit lot than the lot with the dwelling unit, as long as the right to use that parking is formalized by an easement on the plat, to be recorded with King County Records and Licensing Services Division.

Staff Analysis: The applicant does not propose parking for dwelling units on a different unit lot. Parking will be limited to within the garages of each proposed townhouse unit.

Criterion (f): The unit lot is not a separate buildable lot, and that additional development of the individual unit lots may be limited as a result of the application of development standards to the parent lot and shall be noted on the plat, to be recorded with King County Records and Licensing Services Division.

Staff Analysis: This criterion is a mandatory condition of approval for a unit lot subdivision. As a condition of subdivision approval, this information shall be included on the face of the final plat.

Criterion (g): The applicant shall record a covenant on the plat that states, "These units will be considered individual units and part of one structure that cannot be segregated from one another. A unit lot development is defined as one building or one structure in the International Building Code and International Fire Code and National Electrical Code."

Staff Analysis: This criterion does not apply since the units were designed as structurally independent, they are not considered one building or structure under the International Building Code, International Fire Code, or National Electrical Code.

9. SITE DEVELOPMENT STANDARDS (SMC 20.50)

- 9.1 Densities and Dimensions in the MUR-35' Zone (SMC 20.50.020) – See Section 8.3 above.
- 9.2 Significant Tree Removal (SMC 20.50.290-370) – See Section 8.1 above.
- 9.3 Parking and Access (SMC 20.50.380-440)
Each dwelling unit must provide one off-street parking space (SMC 20.50.390A). All required parking spaces are proposed to be located within the garages of each townhome unit. The spaces must measure at least 8.5 feet by 20 feet in size. Each townhome unit has at least one parking space meeting this measurement, with some having in excess of this dimension, resulting in 111 parking spaces in individual unit garages, 77 of which are standard size (8.5 feet wide by 20 feet long) and 34 of which are compact size (8 feet wide by 16 feet long).

10. ADEQUACY OF PUBLIC FACILITIES (SMC 20.60)

- 10.1 Wastewater – City of Shoreline Public Works Department Wastewater Utility staff have reviewed the subdivision and determined that sufficient sewer capacity is currently available, subject to conditions. (**Exhibit 17, Project Reviews Report**)
- 10.2 Water – Seattle Public Utilities has reviewed the subdivision and has issued a Water Availability Certificate, subject to conditions (**Exhibit 20**).
- 10.3 Fire Protection – The Shoreline Fire Department, a special purpose district separate and distinct from the City, has reviewed the plans for access, water pressure to the site, and proximity to fire hydrants and found the plans satisfactory, subject to conditions. Future development of the site with housing units will require the payment of fire impact fees pursuant to SMC 3.75 (**Exhibit 17, Project Reviews Report**).
- 10.4 Surface and Stormwater Management – The Public Works Department has reviewed the proposed subdivision and associated development and determined that surface water standards as set forth in the Engineering Development Manual, which are based on the 2014 Ecology manual shall be satisfied (**Exhibit 17, Project Reviews Report**).
- 10.5 Streets and Access – The Public Works Department has reviewed the proposed subdivision and associated development and determined that there is adequate access from N 147th and 148th Streets via a shared access driveway that loops. Frontage improvements for Meridian Avenue N and N 147th and 148th Streets, including re-paving of travel lanes (all), a half-center turn lane (Meridian), new curbs (all), gutters (all), bike lane (Meridian), parking lane (N 147th and 148th), sidewalks (all), and an amenity zone (all) will be required prior to final plat approval. Alternatively, the applicant may post a bond or other surety for frontage improvements, as provided in SMC 20.30.440, prior to final plat approval.

11. ENGINEERING AND UTILITY DEVELOPMENT STANDARDS (SMC 20.70)

11.1 Right-of-Way Dedication – The proposal requires a ROW easement of 6.5 feet on Meridian Avenue N and of 0.5 feet on both N 147th and 148th Streets as a condition of approval.

11.2 Frontage Improvements – The following frontage improvements will be required as a condition of approval and shall be installed by the applicant prior to final plat approval, or the applicant may post a bond or other surety as described in Section 10.5 above.

a) Along N 147th St:

- i. From the centerline of the existing ROW, provide a 10' travel lane, 7' parking, 6" curb, 5' amenity zone, and 8' sidewalk.
- ii. Provide a reduced throat on N 147th St at Meridian Ave N. The roadway width at the reduced throat should be 24'.
- iii. ADA compliant curb ramps are required for the legal crossing across N 147th St at Meridian Ave N.

b) Along N 148th St:

- i. From the centerline of the existing ROW, provide a 10' travel lane, 7' parking, 6" curb, 5' amenity zone, and 8' sidewalk.
- ii. Provide a reduced throat on N 148th St at Meridian Ave N. The roadway width at the reduced throat should be 24'.
- iii. ADA compliant curb ramps are required for the legal crossing across N 148th St at Meridian Ave N.

c) Along Meridian Ave N:

- i. From the centerline of the existing ROW, provide 5' for half of a center turn lane, 11' travel lane, 7' bike lane, 6" curb, 5' amenity zone, and 8' sidewalk.
- ii. Pedestrian scale lighting is required along Meridian Ave N per Section 7.9 of the 2020 EDM.
- iii. ADA compliant curb ramps are required for the legal crossings across Meridian Ave N at N 147th St and N 148th St.

11.3 Utility Undergrounding – Undergrounding of all utilities per SMC 20.70.430 will be required.

C. CONCLUSIONS

Based on the above, staff concludes the proposed Preliminary Formal Subdivision:

- Has met the applicable requirements of the Shoreline Municipal Code, including SMC Title 20 Unified Development Code.
- Has met the criteria in RCW 58.17.110, Approval or disapproval of subdivision and dedication.
- Will make appropriate provisions for the public health, safety, and general welfare. The units within the subdivision will be connected to public sewer and water systems, subject to conditions set forth by the sewer and water providers. Additional stormwater runoff due to the increase of hardscape on Site will be managed according to current City and State standards. Anticipated traffic impacts will be mitigated through the payment of Transportation Impact Fees and construction of frontage improvements along Meridian Avenue N and NE 147th and 148th Streets. Impacts to the City's Park System and to the Shoreline Fire Department will be mitigated through Park and Fire Impact Fees. Impacts fees will be due at building permit issuance.

- Will serve the public use and interest. The Site is located within the 145th Street Station Subarea which promotes denser development in proximity to future high-capacity transit, specifically Sound Transit's 145th Street light rail station located approximately one-third of a mile from the Site. The denser mixed-use residential zoning is intended to improve walkability and reduce car dependency. The proposed subdivision's creation of 70 unit lots will result in an additional 59 housing units thereby helping to address the regional housing shortage in the Central Puget Sound area. In addition, by increasing density of this type, walkability and social interaction is promoted; car dependency is reduced, resulting in less greenhouse gas emissions and congestion; public services can be provided more efficiently; and more housing types are provided within the City.

D. STAFF RECOMMENDATION

Staff's recommendation to the Hearing Examiner is to forward to the City Council a recommendation of approval for the proposed Preliminary Formal Subdivision application, PLN20-0139, subject to the following conditions:

1. The applicant shall file for a Lot Merger to merge the eleven (11) existing lots. Development permits for the Site, including but not limited to, clearing and grading permits, site development permits, right-of-way permits, and building permits, shall not be issued until the City has approved a Lot Merger for the Site and the same has been recorded with the King County Recorder's Office. Failure to apply for or receive approval of a Lot Merger, or to record an approved Lot Merger, shall render the Preliminary Plat null and void and as such, no Final Plat shall be approved or recorded.
2. Applicant shall comply with all applicable provisions of the Shoreline Municipal Code, specifically SMC Title 20 Unified Development Code.
3. All existing and proposed restrictions, easements, tracts, and their purpose shall be clearly shown on the face of the Final Plat.
4. All utility easements for water service, sewer service, underground power, and telecommunications shall be noted on the face of the Final Plat.
5. A use and maintenance agreement shall be recorded, filed separately, or noted on the face of the Final Plat for all joint access and utility easements/tracts.
6. The stormwater facilities shall be complete and pass inspection prior to approval of the Final Short Plat, or the applicant shall post suitable bond or surety to guarantee the completion of improvements within one year of the approval of the final plat.
7. A stormwater declaration of covenant in a form acceptable to the City shall be recorded with the King County Recorder's Office prior to approval of the final plat and the recording number shall clearly be noted on the final plat. If the applicant has posted a bond or surety, then the declaration of covenant shall be recorded on each lot shown on the final plat prior to release of the bond or surety. Or, in the alternate, covenant language in a form acceptable to the City shall be included on the face of the final plat.
8. A joint use maintenance agreement identifying the rights and responsibilities of property owners within the final plat, or a homeowner's association, shall be executed for the maintenance and operation of the stormwater facilities and recorded with the King County Recorder's Office prior to approval of the final plat. Or, in the alternative, joint use maintenance agreement language shall be included on the face of the final plat. If the

declaration of covenant is used to outline the maintenance requirements, it must expressly be stated on the final plat.

9. The ROW Dedication(s) shall be recorded and the recording number(s) shall be shown on the final plat.
10. All conditions for access and life safety, as required by Shoreline Fire Department, shall be met. One hydrant is required and spacing shall be within 500 feet from another hydrant. The proposed access roads must be a minimum 20 feet wide and marked as a fire lane with no parking allowed. Both shall be noted on the face of the Final Plat, and the improvements shall be completed prior to Final Plat approval.
11. All conditions of the water availability certificate shall be met:
 - a. Design and Install approximately 135 feet of 8-inch ductile iron pipe water main in N 148th Street extending from the end of the existing 8-inch main to the east parcel boundary, including appurtenance(s).
 - b. If the proposed project changes after the Water Availability Certificate is certified, or if the current plan submitted to SPU does not detail the entire scope of the proposed project, water requirements may change, and a new Water Availability Certificate may be required.
 - c. Fire flow or other Fire Department requirements may alter water system needs at any time.
 - d. Water availability requirements will change if existing system cannot support desired water service.
12. All conditions set forth by City of Shoreline Public Works for new sewer connections shall be met:
 - a. Sanitary Sewer Developer Extension required to provide sewer service.
 - b. All materials and workmanship in connection with the installation of any sewers connected to the public sewer shall be as specified by City of Shoreline Public Works Department Engineering Development Manual (EDM) Division 4 Wastewater.
 - c. Wastewater easements will be required on City of Shoreline form. The easement shall be recorded prior to Final Plat approval and it shall be clearly noted on the face of the Final Plat.
13. All new development shall be served with underground power and separate meters for each dwelling unit.
14. Tree protection shall be in place at time of pre-construction meeting as shown on approved plans for DEV20-1621. Tree protection shall remain in place until final inspection and shall not be removed except as outlined in the approved arborist report.
15. Pre-construction meeting required. Project arborist shall attend pre-construction meeting with city building inspector and project general contractor.
16. Project arborist shall be onsite for removal of hardscape adjacent to tree protection area on the southeast corner of the site.

17. Applicant shall provide city planner with monitoring reports (electronic, PDF file) from project arborist on retained trees as follows:
 - a. Start of construction (post-demolition, pre-site grading work)
 - b. Beginning of dry season (May), annually if construction spans more than one year
 - c. End of dry season (September), annually if construction spans more than one year
 - d. End of site grading and utility installation
18. Trees shall not be removed during bird nesting season, which stretches from the last week of February to the first week of August, unless the project ecologist is onsite to facilitate bird nest relocation. If a young bird is encountered and is unable to fly, the project ecologist shall contact the approved rehabilitation facility, PAWS in Lynnwood, WA.
19. Covenants, conditions and restrictions identifying the rights and responsibilities of the property owner(s) and/or the homeowners' association shall be executed for the use and maintenance of vehicle access areas; walkway areas; solid waste storage and/or collection area(s); on-site common outdoor space; landscaping; underground utilities; exterior building facades and roofs of individual units; and other similar features shall be recorded, filed separately or noted on the Final Short Plat. Regarding landscaping, the maintenance agreement shall specifically address maintenance responsibilities of required replacement trees and landscaping.
20. The square footage of each lot shall be clearly shown on the face of Final Plat.
21. All addresses shall be shown on the recorded Final Plat. Each unit shall be addressed as follows:
 - a. Lot 1 – 2119 N 148th St Unit A
 - b. Lot 2 – 2119 N 148th St Unit B
 - c. Lot 3 – 2119 N 148th St Unit C
 - d. Lot 4 – 2119 N 148th St Unit D
 - e. Lot 5 – 2119 N 148th St Unit E
 - f. Lot 6 – 2123 N 148th St Unit A
 - g. Lot 7 – 2123 N 148th St Unit B
 - h. Lot 8 – 2123 N 148th St Unit C
 - i. Lot 9 – 2123 N 148th St Unit D
 - j. Lot 10 – 2121 N 148th St Unit A
 - k. Lot 11 – 2121 N 148th St Unit B
 - l. Lot 12 – 2121 N 148th St Unit C
 - m. Lot 13 – 2117 N 148th St Unit E
 - n. Lot 14 – 2117 N 148th St Unit D
 - o. Lot 15 – 2117 N 148th St Unit C
 - p. Lot 16 – 2117 N 148th St Unit B
 - q. Lot 17 – 2117 N 148th St Unit A
 - r. Lot 18 – 2116 N 147th St Unit A
 - s. Lot 19 – 2116 N 147th St Unit B
 - t. Lot 20 – 2116 N 147th St Unit C
 - u. Lot 21 – 2116 N 147th St Unit D
 - v. Lot 22 – 2116 N 147th St Unit E

w. Lot 23 – 2126 N 147th St Unit A
 x. Lot 24 – 2126 N 147th St Unit B
 y. Lot 25 – 2126 N 147th St Unit C
 z. Lot 26 – 2126 N 147th St Unit D
 aa. Lot 27 – 2126 N 147th St Unit E
 bb. Lot 28 – 2150 N 147th St Unit A
 cc. Lot 29 – 2150 N 147th St Unit B
 dd. Lot 30 – 2150 N 147th St Unit C
 ee. Lot 31 – 2150 N 147th St Unit D
 ff. Lot 32 – 2150 N 147th St Unit E
 gg. Lot 33 – 2150 N 147th St Unit F
 hh. Lot 34 – 2150 N 147th St Unit G
 ii. Lot 35 – 2150 N 147th St Unit H
 jj. Lot 36 – 2142 N 147th St Unit E
 kk. Lot 37 – 2142 N 147th St Unit D
 ll. Lot 38 – 2142 N 147th St Unit C
 mm. Lot 39 – 2142 N 147th St Unit B
 nn. Lot 40 – 2142 N 147th St Unit A
 oo. Lot 41 – 2132 N 147th St Unit E
 pp. Lot 42 – 2132 N 147th St Unit D
 qq. Lot 43 – 2132 N 147th St Unit C
 rr. Lot 44 – 2132 N 147th St Unit B
 ss. Lot 45 – 2132 N 147th St Unit A
 tt. Lot 46 – 2122 N 147th St Unit F
 uu. Lot 47 – 2122 N 147th St Unit E
 vv. Lot 48 – 2122 N 147th St Unit D
 ww. Lot 49 – 2122 N 147th St Unit C
 xx. Lot 50 – 2122 N 147th St Unit B
 yy. Lot 51 – 2122 N 147th St Unit A
 zz. Lot 52 – 2112 N 147th St Unit F
 aaa. Lot 53 – 2112 N 147th St Unit E
 bbb. Lot 54 – 2112 N 147th St Unit D
 ccc. Lot 55 – 2112 N 147th St Unit C
 ddd. Lot 56 – 2112 N 147th St Unit B
 eee. Lot 57 – 2112 N 147th St Unit A
 fff. Lot 58 – 14704 Meridian Ave N Unit D
 ggg. Lot 59 – 14704 Meridian Ave N Unit C
 hhh. Lot 60 – 14704 Meridian Ave N Unit B
 iii. Lot 61 – 14704 Meridian Ave N Unit A
 jjj. Lot 62 – 14718 Meridian Ave N Unit E
 kkk. Lot 63 – 14718 Meridian Ave N Unit D
 lll. Lot 64 – 14718 Meridian Ave N Unit C
 mmm. Lot 65 – 14718 Meridian Ave N Unit B
 nnn. Lot 66 – 14718 Meridian Ave N Unit A
 ooo. Lot 67 – 14728 Meridian Ave N Unit D
 ppp. Lot 68 – 14728 Meridian Ave N Unit C
 qq. Lot 69 – 14728 Meridian Ave N Unit B
 rrr. Lot 70 – 14728 Meridian Ave N Unit A

22. The subdivision shall comply with tree conservation, land clearing and site grading standards specified in SMC Chapter 20.50, Subchapter 5, specifically by retaining

nineteen (19) onsite significant trees and complying with the tree protection conditions numbers 14-18.

23. A Covenant shall be recorded either by stating it on the face of the Final Plat or by filing a Declaration of Covenant with King County Recorder's Office prior to Final Plat approval. The recording number of this Declaration shall be noted on the plat. The language of the covenant shall be:

"Each unit lot is not a separate buildable lot. Additional development of the individual unit lots may be limited as a result of the application of development standards to the parent lot. These units will be considered individual units and part of one structure that cannot be segregated from one another."

24. The following note shall be placed on the face of the Final Plat:

"This subdivision is approved based on SMC 20.30.410.D Unit Lot Development standards and Exception (#2) to Table 20.50.020(2) that allows modifications to certain dimensional standards for unit lot developments. Any future development of the individual lots created by this subdivision may be limited as a result of the application of development standards."



City of Shoreline Planning & Community Development

17500 Midvale Avenue North Shoreline, WA 98133-4905

Phone: (206) 801-2500 Fax: (206) 801-2788

Email: pcd@shorelinewa.gov Web: www.shorelinewa.gov

Permit hours – M, T, Th, F: 8:00 a.m. to 4:00 p.m. | W: 1:00 to 4:00 p.m.

Attachment B PERMIT APPLICATION

PARCEL INFORMATION (Include all parcel(s) information. Attach additional sheets, if necessary.)

Project Address See Project Description

(Leave blank if address is not assigned)

Parcel Number (Property Tax Account Number) 7771300-055, -060, -065, -070, -110, -115, -125, -135, -140, -145, -150Legal Description SHORELINE HEIGHTS ADD Plat Block: 2 Plat Lot: 2

Attach separate sheet for Legal Description

PROPERTY OWNER INFORMATION

Name _____ Email _____

Company Name Diversified Strategies Investment Fund Phone _____Address 2117 North 148th Street, City Shoreline State WA Zip 98133

OWNER'S AUTHORIZED AGENT

Name Jim Sprott Email jim.sprott@pultegroup.comCompany Name Pulte Homes of Washington, Inc. Phone (425) 216-3493Address 3535 Factoria Blvd SE #600 City Bellevue State WA Zip 98006

PROJECT INFORMATION

- Type of Application: ☒ Single Family ☐ Multi-Family ☐ Non-Residential ☐ Legislative
- Building/Construction: ☒ New Construction ☐ Change of Use ☐ Mechanical ☐ Fire Sprinkler
☐ Addition/Remodel ☐ Demolition ☐ Plumbing ☐ Fire Alarm
☒ Clearing & Grading ☒ Site Development ☐ Investigation Inspection ☐ Other
- Land Use: ☒ Subdivision ☐ Zoning Variance ☐ Use - Home Occupation ☐ Conditional Use
☐ Short Plat ☐ Engineering Deviation ☐ Use - Bed & Breakfast ☐ Code Interpretation
☐ Floodplain ☐ Use - Temporary Use ☐ Rezone
☐ Administrative Design Review

PROJECT DESCRIPTION

Construction of a 72 unit town home development with associated roadways and utility infrastructure on 11 underlying parcels at 2105, 2117, 2123 & 2150 N 148th St, 14704, 14710 & 14718 Meridian Avenue N, 2122, 2116, 2132 & 2142 N 147th Street, Shoreline, WA 98133

Construction Value _____

CONTRACTOR INFORMATION

Company Name TBD Email _____

Contact Person _____ Phone _____

Address _____ City _____ State _____ Zip _____

L&I Contractor's License # _____ Expiration Date _____

I am the property owner or authorized agent of the property owner. I certify to that, to the best of my knowledge, the information submitted in support of this permit application is true and correct. I certify that I will comply with all applicable City of Shoreline regulations pertaining to the work authorized by the issuance of a permit. I understand that issuance of this permit does not remove the owner's responsibility for compliance with state or federal laws regulating construction or environmental laws. I grant permission for City staff and agents to enter areas covered by this permit for the sole purpose of inspecting these areas in order to process this application and to enforce code provisions related to the issued permit(s).

Signature of **PROPERTY OWNER**

OR

Jim Sprott

Signature of **AUTHORIZED AGENT**Date 7/15/2020

Print Name _____

8a-53 Jim Sprott

PLN20-0139
1/2020

CRITICAL AREAS WORKSHEET

Attachment B

- ☐ Yes ☒ No Is there any standing or running water on the surface of the property or on any adjacent property at any time during the year?
- ☐ Yes ☒ No Does the site have steep slopes with little to no vegetation?
- ☐ Yes ☒ No Has any portion of the property or any adjacent property ever been identified as a wetland or swamp?
- ☐ Yes ☒ No Does the site contain high percentages of silt and/or very fine sand?
- ☐ Yes ☒ No Are any willows, skunk cabbage, alders, cottonwoods, or cattails present on your property or adjacent properties?
- ☐ Yes ☒ No Does the site contain ground water seepage or springs near the surface of the ground?
- ☐ Yes ☒ No Are there any indications on any portion of the property or on any adjacent property of rockslides, earthflows, mudflows, landslides, or other slope failure?
- ☐ Yes ☒ No Is the property within or adjacent to a floodplain?
- Please indicate which line best represents the steepest slope found on your property. ☐ 0%-5% ☐ 5%-10% ☐ 10%-15% ☐ 15%-20% ☐ 20%-25% ☒ 25%+

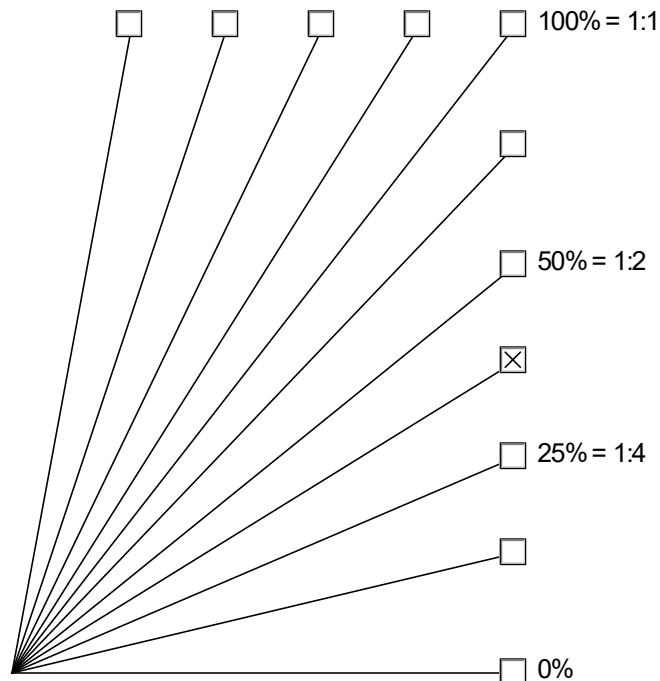
Please describe the site conditions for any "yes" answer:

Who prepared this information? Gina Brooks (Core Design, Inc.) with responses from John Altmann (Altmann Oliver Assoc, LLC)

How to Determine the Slope of a Hillside

The slope is considered the vertical measure as it relates to the horizontal measure. For example if a slope has a rise of one foot over a four foot horizontal distance the slope would be 1:4 or a 25% slope.

(Check appropriate slope percentage box and mark correct box on diagram below.)





Legal Description

TPN 777130-0055:

LOT 1 IN BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0060:

LOT 2 IN BLOCK 2 OF SHORELINE HEIGHTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0065:

LOT 3 IN BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY AUDITOR, WASHINGTON.

TPN 777130-0070:

LOT 4, BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, IN KING COUNTY, WASHINGTON.

TPN 777130-0135:

LOT 17, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NUMBER 20190620000657, IN KING COUNTY, WASHINGTON.

TPN 777130-0140:

LOT 18, BLOCK 2, SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, AND AMENDED BY DOCUMENT RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0145:

LOT 19, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0150:

LOT 20, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.



TPN 777130-0125:

LOTS 15 AND 16, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON;

EXCEPT THE EAST 17.00 FEET OF SAID LOT 15 THEREOF;

(ALSO KNOWN AS LOT A OF CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT NO. SHLA 2010-02 RECORDED ON JUNE 23, 2010 AS RECORDING NO. 20100623900002, IN THE OFFICIAL RECORDS OF KING COUNTY, WASHINGTON.)

TPN 777130-0115:

LOT B, CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT NO. SHLA 2010-02 RECORDED JUNE 23, 2010 UNDER RECORDING NO. 20100623900002, IN KING COUNTY, WASHINGTON.

TPN 777130-0110:

LOT 12 AND THE EAST HALF OF LOT 13 IN BLOCK 2, SHORELINE HEIGHTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, AND PER ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.

LEGEND

	FOUND SURVEY MONUMENT, AS NOTED		POWER METER		FIR
	SEWER MANHOLE		POWER JUNCTION BOX		CEDAR
	CATCH BASIN TYPE I		POWER MANHOLE		PINE
	FIRE HYDRANT		COMMUNICATIONS MANHOLE		HEMLOCK
	WATER VALVE		TELEPHONE PEDESTAL		DECIDUOUS
	WATER METER		TV PEDESTAL		MAPLE
	WATER MANHOLE		TRAFFIC SIGN, AS NOTED		FLOWLINE VERTICAL CURB
	GAS METER		MAILBOX		FLOWLINE THICKENED EDGE
	UTILITY POLE		ROCKERY		DRIVEWAY
	LIGHT POLE		CONIFEROUS TREE		CHAIN LINK FENCE
	GUY ANCHOR		DECIDUOUS TREE		VERTICAL BOARD FENCE
	YARD LIGHT		CONIFER		HOGWIRE FENCE
	POWER VAULT				
					SEWER LINE
					STORM DRAINAGE LINE
					WATER LINE
					GAS LINE
					OVERHEAD POWER LINE
					UNDERGROUND POWER LINE
					UNDERGROUND COMMUNICATIONS LINE
					FENCE LINE
					EDGE OF ASPHALT
					CONCRETE
					GRAVEL
					BRICK

HORIZONTAL DATUM

NAD 1983/91

VERTICAL DATUM

NAVD88

BENCHMARK

WOS BENCHMARK 825

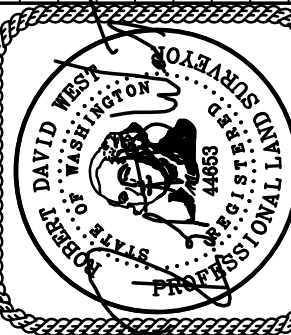
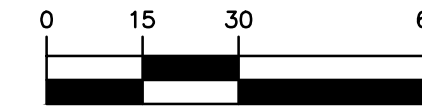
EL: 436.02

PROJECT BENCHMARKS

PROJECT BENCHMARK 1:
SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:
SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET
EL: 405.62

SCALE: 1" = 30'



CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING



BOUNDARY/TOPOGRAPHIC SURVEY
5 DEGREES
PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

DATE	SEE STAMP DATE
DESIGNED	GINA R. BROOKS, P.E.
DRAWN	MARY MOORE
APPROVED	GINA R. BROOKS, P.E.
PROJECT MANAGER	GINA R. BROOKS, P.E.
SHEET	C1.02
PROJECT NUMBER	19133

PLN20-0139

7/28/2020 9:29 AM J:\2019\19133\ENGINEERING\FINAL SHEETS\SITE DEVELOPMENT PLANS\19133_C1.02.DWG

PLN20-0139

HORIZONTAL DATUM
NAD 1983/91

VERTICAL DATUM
NAVD88

BENCHMARK
WGS BENCHMARK 825
EL: 436.02

PROJECT BENCHMARKS
PROJECT BENCHMARK 1:
SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:
SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET
EL: 405.62

LEGAL DESCRIPTION

TPN 777130-0055:
LOT 1 IN BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0060:
LOT 2 IN BLOCK 2 OF SHORELINE HEIGHTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0065:
LOT 3 IN BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY AUDITOR, WASHINGTON.

TPN 777130-0070:
LOT 4, BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, IN KING COUNTY, WASHINGTON.

TPN 777130-0135:
LOT 17, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NUMBER 20190620000657, IN KING COUNTY, WASHINGTON.

TPN 777130-0140:
LOT 18, BLOCK 2, SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, AND AMENDED BY DOCUMENT RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0145:
LOT 19, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0150:
LOT 20, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.

TPN 777130-0125:
LOTS 15 AND 16, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON;

EXCEPT THE EAST 17.00 FEET OF SAID LOT 15 THEREOF;

(ALSO KNOWN AS LOT A OF CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT NO. SHLA 2010-02 RECORDED ON JUNE 23, 2010 AS RECORDING NO. 20100623900002, IN THE OFFICIAL RECORDS OF KING COUNTY, WASHINGTON.)

TPN 777130-0115:
LOT B, CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT NO. SHLA 2010-02 RECORDED JUNE 23, 2010 UNDER RECORDING NO. 20100623900002, IN KING COUNTY, WASHINGTON.

TPN 777130-0110:
LOT 12 AND THE EAST HALF OF LOT 13 IN BLOCK 2, SHORELINE HEIGHTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, AND PER ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.

RESTRICTIONS

TPN 777130-0055:
1. THIS SITE IS SUBJECT TO AN EASEMENT FOR SLOPES, CUTS AND FILLS AS DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 6683408. (SHOWN HEREON)

2. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0060:
1. THIS SITE IS SUBJECT TO AN EASEMENT FOR SLOPES, CUTS AND FILLS AS DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 6683408. (SHOWN HEREON)

2. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

3. THIS SITE IS SUBJECT TO THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "OIL TANK DECOMMISSIONED" RECORDED UNDER KING COUNTY RECORDING NUMBER 200102120010229. (NOTHING TO PLOT, NOTED HERE)

4. THIS SITE IS SUBJECT TO THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "LOW INCOME HOUSING COVENANT AGREEMENT" RECORDED UNDER KING COUNTY RECORDING NUMBER 20010212001230. (NOTHING TO PLOT, NOTED HERE)

5. THIS SITE IS SUBJECT TO THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "AFFORDABLE HOUSING COVENANT AGREEMENT" RECORDED UNDER KING COUNTY RECORDING NUMBER 20020621000155. (NOTHING TO PLOT, NOTED HERE)

6. THIS SITE IS SUBJECT TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "COVENANT" RECORDED UNDER KING COUNTY RECORDING NUMBER 20020627001994. (NOTHING TO PLOT, NOTED HERE)

TPN 777130-0065:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0070:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0110:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0115:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657

RESTRICTIONS CONTINUED

TPN 777130-0125:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

2. THIS SITE IS SUBJECT TO THE TERMS, COVENANTS, CONDITIONS, RESTRICTION AND EASEMENTS AS SHOWN ON LOT LINE ADJUSTMENT NUMBER SHLA 2010-02, RECORDED UNDER KING COUNTY RECORDING NUMBER 20100623900002. (NOTHING TO PLOT, NOTED HERE)

TPN 777130-0135:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0140:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

2. THIS SITE IS SUBJECT TO CONDITIONS, NOTES, EASEMENTS, PROVISIONS, AND/OR ENCROACHMENTS AS DELINEATED ON THE RECORD OF SURVEY RECORDED IN VOLUME 105 OF SURVEYS, PAGE 126, UNDER KING COUNTY RECORDING NUMBER 9509099002. (NOTHING TO PLOT, NOTED HERE)

TPN 777130-0145:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0150:
1. THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

BASIS OF BEARINGS
N88°9'39"W BETWEEN THE TWO FOUND MONUMENTS IN THE CENTERLINE OF NORTH 147TH STREET.

REFERENCES

1. CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT SHLA 2010-02, RECORDED IN VOLUME 272 OF SURVEYS, PAGE 282, UNDER RECORDING NUMBER 20100623900002, KING COUNTY, WASHINGTON.

2. SHORELINE HEIGHTS, BLOCK 2, RECORDED IN VOLUME 44 OF PLATS, PAGE 4, UNDER RECORDING NUMBER 3677754, KING COUNTY, WASHINGTON.

NOTES

1. ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM FIRST AMERICAN TITLE INSURANCE COMPANY FILE NUMBERS NCS-967201-WA1 DATED JUNE 2, 2020, NCS-967202-WA1 DATED JUNE 1, 2020, NCS-967205-WA1 DATED JUNE 1, 2020, NCS-967206-WA1 DATED JUNE 1, 2020, NCS-986899-WA1 DATED JUNE 1, 2020, NCS-986898-WA1 DATED JUNE 2, 2020, NCS-986897-WA1 DATED JUNE 1, 2020, NCS-986896-WA1 DATED JUNE 1, 2020, NCS-967208-WA1 DATED JUNE 2, 2020, NCS-967203-WA1 DATED JUNE 2, 2020, NCS-967204-WA1 DATED JUNE 1, 2020. IN PREPARING THIS MAP, CORE DESIGN, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS CORE DESIGN, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY THE REFERENCED FIRST AMERICAN TITLE INSURANCE COMPANY FILE NUMBERS. CORE DESIGN, INC. HAS RELIED WHOLLY ON FIRST AMERICAN TITLE INSURANCE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND THEREFORE CORE DESIGN, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.

2. THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON JANUARY 10, 2020. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN DECEMBER, 2019.

3. PROPERTY AREA =
TOTAL: 106,291 SQUARE FEET (2.4401± ACRES)
TPN 777130-0055: 8,163± SQUARE FEET (0.1874± ACRES)
TPN 777130-0060: 8,163± SQUARE FEET (0.1874± ACRES)
TPN 777130-0065: 8,171± SQUARE FEET (0.1876± ACRES)
TPN 777130-0070: 8,175± SQUARE FEET (0.1877± ACRES)
TPN 777130-0135: 8,175± SQUARE FEET (0.1877± ACRES)
TPN 777130-0140: 8,171± SQUARE FEET (0.1876± ACRES)
TPN 777130-0145: 8,163± SQUARE FEET (0.1874± ACRES)
TPN 777130-0150: 8,163± SQUARE FEET (0.1874± ACRES)
TPN 777130-0125: 14,045± SQUARE FEET (0.3224± ACRES)
TPN 777130-0115: 14,606± SQUARE FEET (0.3353± ACRES)
TPN 777130-0110: 12,296± SQUARE FEET (0.2823± ACRES)

4. ALL DISTANCES ARE IN US FEET AT GROUND LEVEL.

5. BOUNDARY INFORMATION SHOWN HEREON IS DERIVED FROM OBSERVATION OF CONTROLLING MONUMENTATION AND INTERPRETATION OF RECORD DESCRIPTIONS AND OTHER EVIDENCE. TOPOGRAPHIC INFORMATION SHOWN HEREON IS RELATED TO THE BOUNDARY BY DIRECT FIELD OBSERVATION FROM CONTROLLING MONUMENTATION.

6. THIS IS A FIELD TRAVERSE SURVEY. A THREE SECOND COMBINED ELECTRONIC TOTAL STATION WAS USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN THE CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN WAC 332-130-090. ALL MEASURING INSTRUMENTS AND EQUIPMENT ARE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.



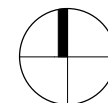
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
APPROVED	GIVA R. BROOKS, P.E.	PROJECT MANAGER			
DATE		SEE STAMP DATE		SHEET	
DESIGNED	GIVA R. BROOKS, P.E.	DATE	09/23/2020	C1.03	
DRAWN	MARY MOORE	PROJECT	19133	PROJECT NUMBER	
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APPROVED	GIVA R. BROOKS, P.E.				

Attachment B

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09/23/2020

PCD





Planning & Community Development

17500 Midvale Avenue North
Shoreline, WA 98133-4905
(206) 801-2500 ♦ Fax (206) 801-2788

SEPA THRESHOLD DETERMINATION OF NONSIGNIFICANCE (DNS)


PROJECT INFORMATION

DATE OF ISSUANCE: November 22, 2021
PROPOSER: Jim Sprott, Pulte Homes of Washington, Inc
APPLICATION NO.: PLN20-0139, DEV20-1621, ROW20-1678, ROW20-1694, TWN20-1637, TWN20-1638, TWN20-1642, TWN20-1643, TWN20-1644, TWN20-1645, TWN20-1648, TWN20-1652, TWN20-1655, TWN20-1656, TWN20-1659, TWN20-1666, TWN20-1672, TWN20-1675
LOCATION OF PROPOSAL: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N, Shoreline, WA 98177 (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060)
DESCRIPTION OF PROPOSAL: Preliminary Formal Subdivision application to divide eleven (11) parcels into seventy (70) townhouse unit lots. Construction of 70 townhouses, along with associated site and frontage improvements.
LEAD AGENCY: City of Shoreline
PUBLIC HEARING: A public hearing is tentatively scheduled before the Hearing Examiner in January 2022 in the Council Chamber at City Hall, 17500 Midvale Avenue N, Shoreline, WA. A Notice of Public Hearing will be distributed no later than 15 days prior to the hearing.

SEPA THRESHOLD DETERMINATION OF NONSIGNIFICANCE (DNS)

The Notice of Application was issued on December 4, 2020. The City of Shoreline, as lead agency for this proposal, has determined that the proposal will not have a probable significant adverse impact(s) on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of the completed environmental checklist, the City of Shoreline Comprehensive Plan, the City of Shoreline Development Code, and other information on file with the Department. This information is available for public review upon request at no charge.

This Determination of Nonsignificance (DNS) is issued in accordance with WAC 197-11-340(2). The City will not act on this proposal for 14 days after issuance.

RESPONSIBLE OFFICIAL: Rachael Markle, AICP
Planning & Community Development, Director and SEPA Responsible Official
ADDRESS: 17500 Midvale Avenue North PHONE: 206-801-2531
Shoreline, WA 98133-4905
DATE: 11/16/21 SIGNATURE: 

PUBLIC COMMENT INFORMATION

This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

APPEAL INFORMATION

This DNS may be appealed by any aggrieved person or agency to the City of Shoreline Hearing Examiner as provided in SMC 20.30 Subchapter 4 and SMC 20.30.680 no later than fourteen (14) calendar days after the date of issuance. Appeals must be submitted in writing to the City Clerk with the appropriate filing fee and received not later than 5:00 pm on the last day of the appeal period, December 6, 2021. The written appeal must contain specific factual objections related to the environmental impacts of the project.

PROJECT INFORMATION

For more information, including application, documents, plans, and all SEPA related materials, please contact Cate Lee, Senior Planner, at cle@shorelinewa.gov or by calling 206-801-2557. A limited number of documents are available on the City's website: <https://www.shorelinewa.gov/government/departments/planning-community-development/records-notices-and-maps/land-use-action-and-planning-notices>.



Planning & Community Development
17500 Midvale Avenue North
Shoreline, Washington 98133-4905

Attachment B

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Cate Lee
PLN20-0139 - DO NOT OPEN
City of Shoreline
17500 Midvale Ave N
Shoreline, WA 98133

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98133-490500



The Seattle Times

AFFIDAVIT OF PUBLICATION

Carla Hoekzema
City of Shoreline Planning
17500 Midvale Ave N
Shoreline WA 98133

STATE OF WASHINGTON, COUNTIES OF KING AND SNOHOMISH

The undersigned, on oath states that he/she is an authorized representative of The Seattle Times Company, publisher of The Seattle Times of general circulation published daily in King and Snohomish Counties, State of Washington. The Seattle Times has been approved as a legal newspaper by orders of the Superior Court of King and Snohomish Counties.

The notice, in the exact form annexed, was published in the regular and entire issue of said paper or papers and distributed to its subscribers during all of the said period.

11/22/2021

The City of Shoreline Notice of SEPA Threshold Determination

Preliminary Formal Subdivision application (#PLN20-0139) to divide eleven (11) parcels into seventy (70) town-house unit lots. Construction of 70 town-houses, along with associated site and frontage improvements. Associated with site development, right-of-way, and building permit numbers DEV20-1621, ROW20-1678, ROW20-1694, TWN20-1637, TWN20-1638, TWN20-1642, TWN20-1643, TWN20-1644, TWN20-1645, TWN20-1648, TWN20-1652, TWN20-1655, TWN20-1656, TWN20-1659, TWN20-1666, TWN20-1672, and TWN20-1675. The Notice of Application was issued on December 4, 2020.

Threshold Determination: The City of Shoreline has determined that the proposal will not have a probable significant adverse impact on the environment, and on 11/22/2021 issued a Determination of Nonsignificance.

Public Comment: This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

Judicial Appeal: This DNS may be appealed by any aggrieved person or agency to the City of Shoreline Hearing Examiner as provided in SMC 20.30 Subchapter 4 and SMC 20.30.680 no later than fourteen (14) calendar days after the date of issuance. Appeals must be submitted in writing to the City Clerk with the appropriate filing fee and received not later than 5:00 pm on the last day of the appeal period, December 6, 2021. The written appeal must contain specific factual objections related to the environmental impacts of the project.

For more information, including application, documents, plans, and all SEPA related materials, please contact Cale Lee, Senior Planner at calee@shorelinewa.gov or by calling 206-801-2557. A limited number of documents are available on the City's website: <https://www.shorelinewa.gov/government/departments/planning-community-development/records-notices-and-maps/land-use-action-and-planning-notices>.

Agent Sharon Seligman

Signature Sharon Seligman

Subscribed and sworn to before me on

11/23/2021

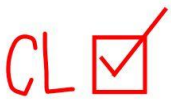
Debbie Collantes

Debbie Collantes

(Notary Signature) Notary Public in and for the State of Washington, residing at Seattle

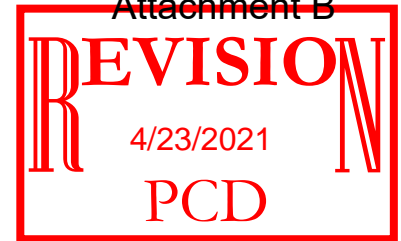
Publication Cost: \$133.80
Order No: 17652
Customer No: 214
PO #:

DEBBIE COLLANTES
Notary Public
State of Washington
License Number 197558
My Commission Expires
February 15, 2022



= Checked by Cate Lee, Senior Planner,
City of Shoreline, 07/06/2021.
Other redlines dated as noted.

Attachment B



SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

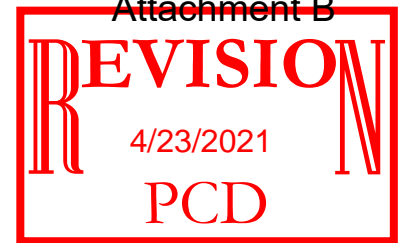
A. Background [\[HELP\]](#)

1. Name of proposed project, if applicable:
5 Degrees

2. Name of applicant:
Ben Wolk

3. Address and phone number of applicant and contact person:
Board & Vellum 115 15th Ave E. Suite 100 Seattle, WA 98112 D: 206.960.4724

Attachment B



- CL ☒ 4. Date checklist prepared:

July 14, 2020 (REVISED April 23, 2021)

- CL ☒ 5. Agency requesting checklist:

City of Shoreline Planning & Community Development

6. Proposed timing or schedule (including phasing, if applicable):

Building Permit Submittal: August 2020

Construction Start: Summer 2021

Construction Duration: 26 months

Construction permits are still under review to date. A Spring 2022 construction start date is more likely. -CL 11/16/2021

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Geotechnical Report

Phase I

Wetland and Stream Reconnaissance

Traffic Impact Analysis (TIA)

Drainage Report

-CL 7/6/2021

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No

10. List any government approvals or permits that will be needed for your proposal, if known.

Lot Merger, NPDES, Water + Sewer Extensions, ROW Permits (sewer, water, frontage),

Planned Action of Consistency Permit, Preliminary Subdivision, Multiple Building One Lot (Building Permits)

Site Development Permit, Building Permits, Demolition Permit(s) -CL 07/06/2021

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

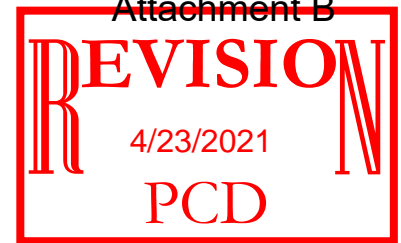
This project proposes to replace 11 single-story single-family homes with 70 three-story single-family attached townhouse units grouped into a total of 14 buildings.

The total combined lot area is 106,291 SF with a total building footprint of 46,960

SF. The proposal includes clearing, grading, utility installation, and frontage improvements. -CL 07/06/2021

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The project is located in the City of Shoreline. It is located on Meridian Avenue between N 148th Street and N 147th Street. The project contains parcel numbers 7771300070, 7771300065, 7771300060, 7771300055, 7771300150, 7771300145, and 7771300140. The legal description is SHORELINE HEIGHTS ADD Plat Block; 2 Plat Lot; 1,2,3,4,18,19 & 20



B. Environmental Elements [\[HELP\]](#)

1. Earth [\[help\]](#)

a. General description of the site:

CL ☒ (circle one): Flat, **rolling**, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)?

CL ☒ **42%**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

CL ☒ **Glacial Till -**

No removal of any agricultural soils

Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

CL ☒ **No**

d. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

CL ☒ **Cut 6,090 cubic yards and 3,060 cubic yards of fill. Over the entire site.**

e. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

CL ☒ **Yes. Erosion control measures will be in place during construction**

f. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

CL ☒ **Maximum allowed (85%)**

g. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Silt fence, catch basin protection, and sediment retention

The project is required to have a City approved Stormwater Pollution Prevention Plan (SWPPP) that prevent/reduces erosion. -CL 07/06/2021

2. Air [\[help\]](#)

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Dust and diesel exhaust

Vehicle emissions after completion due to residents' vehicles and package deliveries (UPS, etc). -CL 07/06/2021

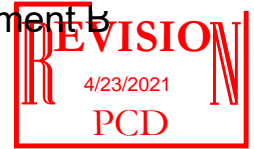
b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

CL ☒ **No**

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

CL ☒ **Standard construction dust control. Limit idling time of equipment**

3. Water [\[help\]](#)

a. Surface Water: [\[help\]](#)

- CL ☒ 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No

- CL ☒ 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No

- CL ☒ 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

There is no body of water in immediate vicinity, therefore this does not apply.

- CL ☒ 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

There is no body of water in immediate vicinity, therefore this does not apply.

- CL ☒ 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No

- CL ☒ 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No.

b. Ground Water: [\[help\]](#)

- CL ☒ 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No.

- CL ☒ 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste material will be discharged into the ground from septic tanks or other sources.

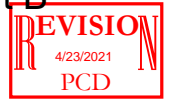
c. Water runoff (including stormwater):

- CL ☒ 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Precipitation. Stormwater will be collected via a tightlined storm drainage system and conveyed to detention facilities prior to discharge from the site.

- CL ☒ 2) Could waste materials enter ground or surface waters? If so, generally describe.

Not to our knowledge.



- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No.

This project shall comply with Minimum Requirement #4 of the 2014 Surface Water Management Manual for Western Washington (Preservation of Natural Drainage Systems and Outfalls). -CL 07/06/2021

- d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

CL ☒

The project will be mitigating the impacts of the developed drainage with detention and water quality treatment facilities.

4. *Plants* [\[help\]](#)

- a. Check the types of vegetation found on the site:
- ☒ X deciduous tree: alder, maple, aspen, other **laurel, magnolia, cherry, plum, apple, elm, dogwood, ash -CL 07/06/2021**
 - ☒ X evergreen tree: fir, cedar, pine, other **spruce, yew, hemlock -CL 07/06/2021**
 - ☒ X shrubs
 - ☒ X grass
 - ☐ pasture
 - ☐ crop or grain
 - ☐ Orchards, vineyards or other permanent crops.
 - ☐ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
 - ☐ water plants: water lily, eelgrass, milfoil, other
 - ☐ other types of vegetation

- b. What kind and amount of vegetation will be removed or altered?

With the exception of a grove of mature evergreen trees, the site will be cleared.

Materials submitted to the City indicate there are 86 significant sized trees onsite, 67 of which will be removed, 19 will be retained. -CL 07/06/2021

- c. List threatened and endangered species known to be on or near the site.

No known threatened or endangered species known to be on or near the site.

CL ☒

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Proposed landscaping will be in compliance with requirements of the City of Shoreline and will include: preservation of the existing grove, planting of replacement trees for other trees to be removed, and continuous shrub and groundcover in all new proposed planting areas.

139 onsite replacement trees are required. The applicant has requested, and been approved, for a reduction to 110 onsite replacement trees. -CL 11/16/2021

- e. List all noxious weeds and invasive species known to be on or near the site.

No noxious weeds know to be on the site. Some spots of English Ivy (Hedera helix) are present but those will be removed as part of the project.

CL ☒

5. *Animals* [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

CL ☒

birds: hawk, heron, eagle, **songbirds**, other:

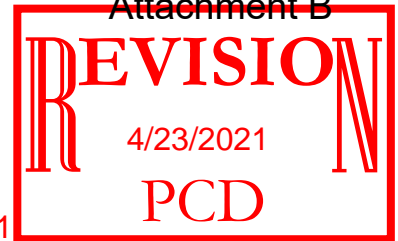
mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other _____

- b. List any threatened and endangered species known to be on or near the site.

None known.

WA Department of Fish and Wildlife Priority Habitats and Species (PHS) Mapping indicates potential presence of little brown bat (*Myotis lucifugus*). The display resolution is on a Township wide basis and is not site specific. The closest area to the site that may be of primary association is likely the Twin Ponds Park located off-site to the northeast. -CL 07/06/2021



- c. Is the site part of a migration route? If so, explain.

Not to our knowledge.

The site is in the migration route known as the Pacific flyway. -CL 07/06/2021

- d. Proposed measures to preserve or enhance wildlife, if any:

Meeting tree retention requirements by retaining a grove of trees on site.

- e. List any invasive animal species known to be on or near the site.

None known.

6. *Energy and Natural Resources* [\[help\]](#)

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electric heat + water and gas ranges

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

- c. What kinds of energy conservation features are included in the plans of this proposal?

List other proposed measures to reduce or control energy impacts, if any:

This project will meet Built Green 4 star standards. This includes increased insulation, high performance windows and high efficiency water heater

7. *Environmental Health* [\[help\]](#)

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

- 1) Describe any known or possible contamination at the site from present or past uses.

No known contamination.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

There are heating oil tanks that will be removed per local requirements

See 02/01/2021 email from Carolyn Decker (CDecker@terra-associates.com) -CL 07/06/2021

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

None known.

- 4) Describe special emergency services that might be required.

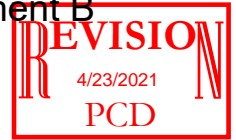
None known.

- 5) Proposed measures to reduce or control environmental health hazards, if any:

None known.

b. *Noise*

- 1) What types of noise exist in the area which may affect your project (for example:



CL ☒ traffic, equipment, operation, other)?
Traffic.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

CL ☒ **Short Term – Construction noise during construction hours permitted by the City.**

Long Term – same as current conditions – Traffic.

CL ☒ 3) Proposed measures to reduce or control noise impacts, if any:
Follow standard allowable construction hours per City of Shoreline.

8. *Land and Shoreline Use* [\[help\]](#)

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

CL ☒ **Single-Family homes (11). No affect on current land uses.**

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

CL ☒ **No.**

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

CL ☒ **No.**

c. Describe any structures on the site.

11 Single-Family homes approximately 1500-2500 SF each

CL ☒

d. Will any structures be demolished? If so, what?

All existing homes and associated structures are to be demolished.

CL ☒

e. What is the current zoning classification of the site?

MUR-35 – Mixed-use Residential with a 35' height limit

CL ☒

f. What is the current comprehensive plan designation of the site?

MUR-35 The Comprehensive Plan designation is Station Area 3. -CL 07/06/2021

g. If applicable, what is the current shoreline master program designation of the site?

Unknown. The site does not have a shoreline master program designation because it is not within the Shoreline Jurisdiction, which are "shorelines of the State" and "shorelands" as defined in RCW 90.58.030. -CL 07/06/2021

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

CL ☒ **No.**

i. Approximately how many people would reside or work in the completed project?

Approximately 182 people. Average of 2.6 people per household.

CL ☒

j. Approximately how many people would the completed project displace?

None. The proposed development will provide additional housing (more density) beyond the current conditions. The proposal would displace the 11 families currently living in the existing detached single-family homes. -CL 07/06/2021

k. Proposed measures to avoid or reduce displacement impacts, if any:

New development provides more density. We are not displacing housing.

No measures are proposed beyond creating 70 new attached single-family homes. -CL 07/06/2021

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

CL ☒ **The project development will go through extensive permitting processes through the City of Shoreline to ensure the project meets and is compatible with current land use code.**

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

CL ☒ **Not Applicable since this is not agricultural forest lands.**

9. **Housing** [\[help\]](#)

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

CL ☒ **70 townhouse units – middle income (market rate) housing.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

CL ☒ **11 units – middle income (market rate) housing.**

c. Proposed measures to reduce or control housing impacts, if any:

CL ☒ **We are proposing increased density at the same income level.**

10. **Aesthetics** [\[help\]](#)

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

35' max Fiber cement lap siding, fiber cement panel siding, steel deck railings, vinyl garage doors. -CL 07/06/2021

b. What views in the immediate vicinity would be altered or obstructed?

None.

b. Proposed measures to reduce or control aesthetic impacts, if any:

We are proposing buildings with a contextually responsive architectural palette that will enhance the neighborhood. Additionally, the development retains numerous mature trees throughout the site and thoughtful landscaping.

11. **Light and Glare** [\[help\]](#)

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Some light will be generated by the building and site lighting at night. The lighting proposed meets minimum City of Shoreline municipal guidelines for on-site lighting

b. Could light or glare from the finished project be a safety hazard or interfere with views?

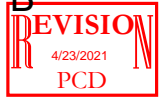
No.

c. What existing off-site sources of light or glare may affect your proposal?

None. The existing street lights and lights from neighboring buildings will have minimal impact on the proposal.

d. Proposed measures to reduce or control light and glare impacts, if any:

The tree lined property and the building setbacks mitigate the impact significantly.



Additionally, there are site elements, like fences and landscaping that will reduce impacts. *Recreation* [\[help\]](#)

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Twin Ponds park is 3 blocks to the north of the site. Additionally, the development is providing a large open space to promote gathering and activity.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

No.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The development is proposing a large open space as well as private amenity space for each unit.

12. *Historic and cultural preservation* [\[help\]](#)

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

None to our knowledge.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

None to our knowledge.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

We conducted community outreach at the start of the project.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Since there were no known cultural resources impacted, we didn't utilize any measures to compensate for loss of resources.

13. *Transportation* [\[help\]](#)

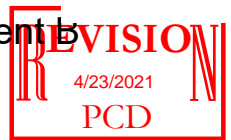
- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

The site is accessed by N 147th and N 148th street. The site is adjacent to Meridian Avenue N to the west. Some of the existing homes off of Meridian Ave N, which is an arterial, have access from it, but the proposed plan has access from N 147th St and N 148th St only. -CL 07/06/2021

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The site is directly served by public transit, with two different fixed routes (Route 314 and 346) operating along the western property frontage of Meridian Avenue N (effectively across the street or within 100 feet) and an additional route on N 145th Street (Route 304), with stops located approximately 500 feet away from the site at the N 145th Street and Meridian Avenue N signalized intersection. The site is served by two King County Metro bus lines, the 346 on Meridian Ave N and the 304 on NE 145th St. -CL 11/16/2021

- c. How many additional parking spaces would the completed project or non-project proposal



have? How many would the project or proposal eliminate?

There are 94 amount of parking stalls proposed for the project. Approximately 22 parking stalls will be eliminated. Submitted plans show a total of 111 parking spaces in garages attached to the units. -CL 11/16/2021

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Frontage improvements will be completed as part of the development

Frontage improvements are required on Meridian Ave N, N 147th St and N 148th St. -CL 07/06/2021

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No. Sound Transit is currently constructing the Link Light Rail Lynnwood Link Extension along the east side of I-5, less than 1/2-mile from the subject site. There will be a light rail station at I-5 and N 148th St. -CL 07/06/2021

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

When considering removal of existing homes, a net increase of approximately 277 daily, 17 new a.m. peak hour (5 entering and 12 exiting), and 20 new p.m. peak hour vehicular trips (12 entering and 8 exiting) would be generated at full buildout of the 70 new residential townhome units. Typical truck delivery and move-in, move-out vehicles, and refuse/recycling truck trips would be generated, but none at significant levels. Published trip rates in *Trip Generation Manual, 10th Edition, 2017, ITE*, were applied to estimate vehicle trips. Trips associated with deliveries and services such as refuse/recycling are generally accounted for in the trip rates specified by the ITE Trip Generation Manual, 10th Edition used to estimate vehicle trips, per industry standards. -CL 11/16/2021

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

- h. Proposed measures to reduce or control transportation impacts, if any:

The City of Shoreline does require traffic impact fees to be paid at time of building permit issuance to mitigate traffic impacts on planned transportation system improvements. When considering removal of the existing 11 single-family homes, the estimated traffic impact fee for the Shoreline Townhome project is \$415,692.76 based on rates effective in January 2020.

14. Public Services [\[help\]](#)

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

We are proposing increased density on this site. Therefore, there will be an increased need for public services.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

Required Mitigation fees to be paid to supplement funding for impacted public services due to the increased density.

Fire Impact Fees and Park Impact Fees are due at time of building permit issuance. -CL 07/06/2021

15. Utilities [\[help\]](#)

- a. Circle utilities currently available at the site:

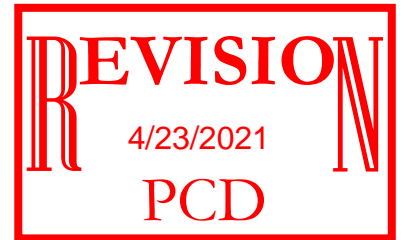
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

- c. Describe the utilities that are proposed for the project, the utility providing the service,

and the general construction activities on the site or in the immediate vicinity which might be needed.

CL ☒

Water (Seattle Public Utilities), Natural Gas (Puget Sound Energy), Electricity (Seattle City Light), Refuse Service (Recology Cleanscapes), Telephone (Century Link), Sanitary Sewer (Ronald Wastewater District), Storm Drainage (City of Shoreline) and Cable (Xfinity).



C. Signature [\[HELP\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee James SprottPosition and Agency/Organization Director, Land DevelopmentDate Submitted: 4/23/2021**D. Supplemental sheet for nonproject actions** [\[HELP\]](#)

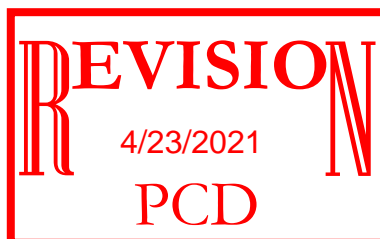
(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?
Proposed measures to avoid or reduce such increases are:
2. How would the proposal be likely to affect plants, animals, fish, or marine life?
Proposed measures to protect or conserve plants, animals, fish, or marine life are:
3. How would the proposal be likely to deplete energy or natural resources?
Proposed measures to protect or conserve energy and natural resources are:
4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parkswilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?
Proposed measures to protect such resources or to avoid or reduce impacts are:
5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?
Proposed measures to avoid or reduce shoreline and land use impacts are:
6. How would the proposal be likely to increase demands on transportation or public services and utilities?
Proposed measures to reduce or respond to such demand(s) are:
7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

MEMORANDUM



DATE: March 25, 2021

TO: Mariah Gill, Land Project Manager
Pulte Group

FROM: Michael J. Read, PE, Principal
TENW

SUBJECT: Shoreline 5 Degrees Townhomes
Transportation Consistency/Traffic Impact Analysis
TENW Project 2020-100



EXPIRES 2 / 28 / 2023

This memorandum documents both a transportation consistency analysis of specific transportation evaluations and land use assumptions documented in the 145th Street Station Area Subarea Plan and Planned Action EIS as well as a traffic impact analysis to ensure compliance with the City's Concurrency requirements related to the proposed *Shoreline 5 Degrees Townhome* project by the Pulte Group. As one of the first several redevelopment projects within the 145th Street Station Area, this consistency and traffic impact analysis considers transportation-related items included in the review:

- Preparation of a vehicle trip generation analysis of the townhome project that would remove 11 existing single-family homes and construct 70 new townhomes within the development, using trip generation rates published by ITE in the *Trip Generation Manual*, 10th Edition, 2017.
- A comparative land use analysis of land use forecasts contemplated by the 145th Street Station Area Subarea Plan and the proposed *Shoreline 5 Degrees Townhome* project.
- Intersection level of service analysis of intersections that would be impacted by more than 20 new vehicle trips during the p.m. peak hour per City Ordinance 615. Given revised unit count and update trip generation rates, no off-site traffic impact analysis is required.
- Review of transportation mitigation requirements to ensure compliance with City adopted level of service standards.

Project Trip Generation

Using the latest edition of the *Trip Generation Manual*, 10th Edition, 2017, TENW prepared an estimated of the net change in vehicle trip generation as a result of the *Shoreline 5 Degree Townhome* project within the Parkwood neighborhood. A conceptual site plan and vicinity map within the context of the 145th Street Station Subarea Plan are provided in **Attachment A**. As noted above, 11 existing single-family homes would be removed as part of the project within properties between N 147th Street and N 148th Street fronting Meridian Avenue N and primarily along N 147th Street between Meridian Avenue N and Corliss Avenue N.

As shown in **Table 1**, a net total of approximately 277 daily, 17 new a.m. peak hour (5 entering and 12 exiting), and 20 new p.m. peak hour vehicular trips (12 entering and 8 exiting) would be generated at full buildout conditions of the 70 new residential townhome units. Detailed trip generation tables are provided in **Attachment B**.

**Table 1: Shoreline 5 Degrees Townhomes
Net Trip Generation Summary**

Time Period	In	Out	Total
<i>Standard ITE Rates</i>			
Weekday AM Peak Hour	5	12	17
Weekday PM Peak Hour	12	8	20
Weekday Daily	138	139	277

Source: Trip Generation Manual, 10th Edition, ITE, 2017.

Existing Transportation Facilities

Arterial roadways serving the immediate site vicinity include Meridian Avenue N, 1st Avenue N, and N 145th Street. With a posted speed limit of 35 mph, Meridian Avenue N is a 2-lane arterial with parking and sidewalks along both sides of the street in a 40-foot curb-to-curb width. 1st Avenue N is also a 2-lane roadway without any existing continuous sidewalk system, has no parking on either side, and is posted at 30 mph. N 145th Street (SR 523) is a principal arterial with a 4-lane channelized section and a posted speed limit of 35 mph.

Fixed route transit service in the immediate site vicinity is provided via Route 346 within less than several hundred feet of the site at the N 148th and Meridian Avenue N intersection. On weekdays, bi-directional headways of 30 minutes between the Aurora Village Transit Center and Northgate Transit center are provided. Additional transit service is provided along N 145th Street via Route 304 with peak directional service from Richmond Beach to downtown Seattle.

The 2019 Shoreline Annual Transportation Report was review for historical collisions along the primary Meridian Avenue N corridor (immediately adjacent to the site). Collision experience was 2 collisions per year or less over a 3- year period from 2017 to 2019 at N 147th Street, N 148th Street, and N 150th Street intersections along Meridian Avenue N. Given that the average annual collision rate was below 1.0 per year, based upon the low collision experience no further review was warranted.

Comparative Land Use Analysis

The 145th Street Station Subarea EIS modeled four zoning scenarios, with Alternative 4 being the closest to adopted zoning within the final Subarea Plan. Specific growth assumptions within the land use element of the EIS relevant to the Shoreline Townhome site include:

- Growth was projected based on each zoning scenario and an annual rate of 1.5-2.5 percent;
- Projections included break-down of anticipated population, housing units, and employees, at a 20 year mark and at build-out; and
- Projections assumed that 25 percent of developments in MUR-70' zoning would utilize development agreements to reach maximum height of 140 feet. It should be noted, that the TAZ zone immediately east of the site (between 1st Avenue NE and Interstate 5) qualifies for this density.

As part of the City's Planned Action Determination and subsequent adopted 145th Street Station Subarea Plan, a total of 2,214 housing units were allocated throughout the station area. As the proposed *Shoreline 5 Degrees Townhomes* project would remove 11 single-family homes and construct 70 low-rise multifamily units, a net increase of 59 housing units would result (assuming a 1:1 equivalency). As such, the proposed *Shoreline 5 Degrees Townhomes* development is consistent with the 145th Street Station Area Subarea Plan and EIS, as the combined known redevelopments along the 1st Avenue N and Meridian Avenue corridors result in a net increase of 405 housing units (280 as part of the *Shoreline 147th Apartments*, 66 units as part of the *Shoreline Townhomes* project, and 59 housing units of the proposed project) representing approximately 18 percent of housing growth planned within the 145th Street Station Subarea Plan (see **Attachment A**).

Traffic Impact Analysis

To ensure compliance with the City's Transportation Concurrency standards, intersection level of service (LOS) analyses were conducted at study intersections that would be impacted by more than 20 new weekday PM peak hour vehicle trips. Given the relative trip distribution onto the immediate Meridian Avenue and 1st Avenue N and north/south destinations, not one arterial intersection would warrant level of service analysis based on the City's threshold criteria.

In addition to review of off-site traffic operational impacts, TENW performed field work along the Meridian Avenue N, N 148th Street, and N 147th Street project frontages. Both roadways where vehicle site access is proposed have low sloping horizontal curves, and therefore, adequate entering sight distance from proposed driveways onto these local roadways can be accommodated within the overall site design with appropriate building setbacks and other line of sight obstructions removed from the existing property frontages. Prior to building occupancy, sight lines should be verified, documented, and stamped by a registered Civil Engineer in the State of Washington.

Transportation Mitigation Review

In review of the 145th Street Station Area Subarea Plan and EIS and subsequent 145th Street Corridor Study, specific improvements are noted along Meridian Avenue N that would include conversion of the street section into 3 lanes (center two-way left turning lane) with bicycle lanes. In addition, new turning lanes are recommended at the signalized intersection of N 145th Street and

Meridian Avenue N. As these improvements are also on the City's Transportation Management Plan, payment of impact fees will mitigate the project's contribution towards these future upgrades. Frontage improvements along public streets will be required.

The City of Shoreline does require traffic impact fees to be paid at time of building permit issuance to mitigate traffic impacts on planned transportation system improvements. When considering removal of the existing 11 single-family homes, the estimated traffic impact fee for the Shoreline Townhome project is \$415,692.76 based on rates effective in January 2020 (calculation provided in **Attachment C**). The actual traffic impact fees would be calculated by the City at time of building permit issuance.

Conclusions

As described above, a transportation consistency analyses was prepared for the proposed *Shoreline 5 Degree Townhome* project with the 145th Street Station Area Subarea Plan and EIS with these determinations:

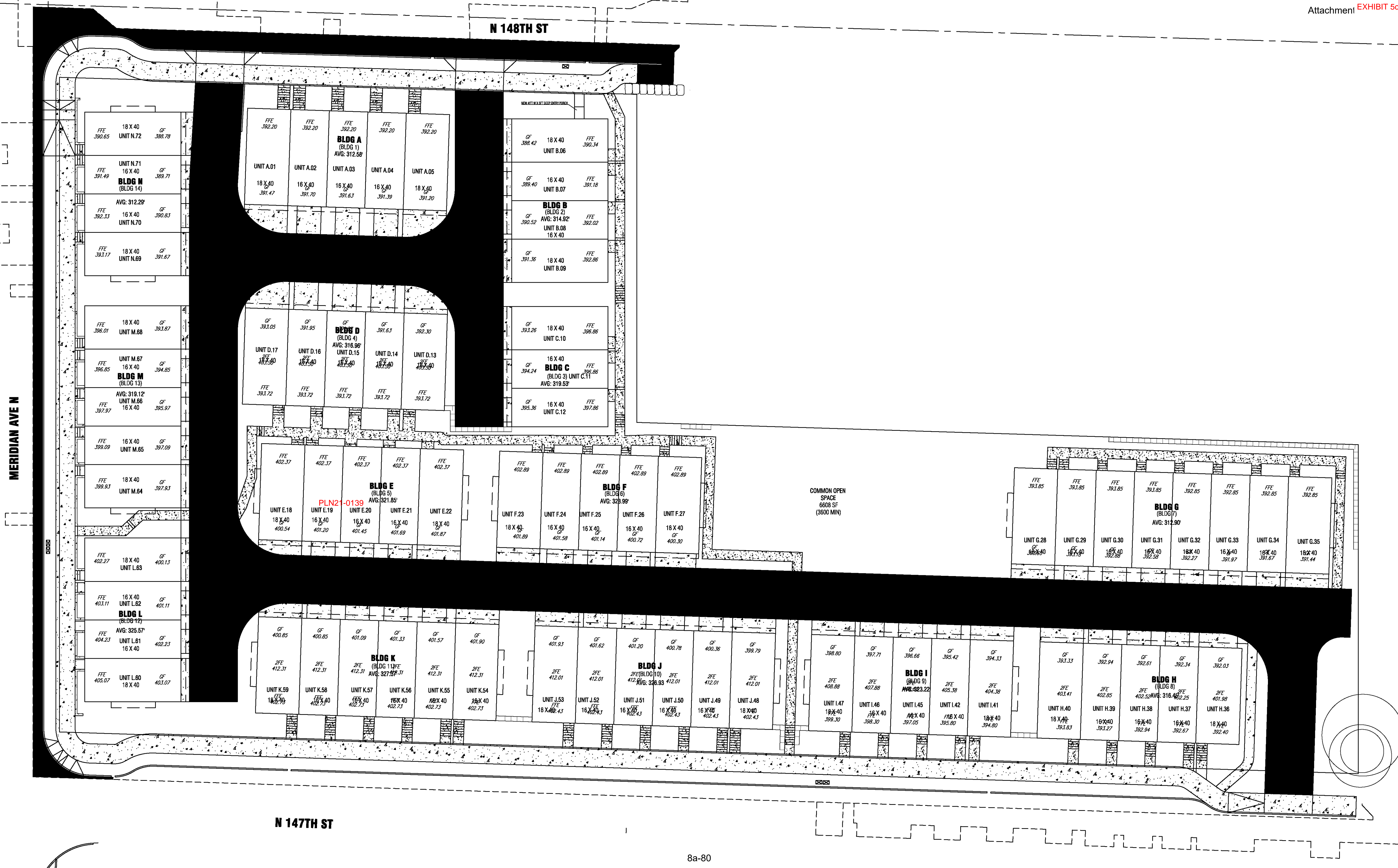
- A net increase of approximately 277 daily, 17 new a.m. peak hour and 20 new p.m. peak hour vehicular trips would be generated by the 70 new residential townhome units and removal of existing single-family homes.
- As part of the City's Planned Action Determination and subsequent adopted 145th Street Station Subarea Plan, a total of 2,214 housing units were allocated throughout the station area. As the proposed *Shoreline 5 Degrees Townhomes* project would remove 11 single-family homes and construct 72 low-rise multifamily units, a net increase of 59 housing units would result (assuming a 1:1 equivalency). As such, the proposed *Shoreline 5 Degrees Townhomes* development is consistent with the 145th Street Station Area Subarea Plan and EIS, as the combined known redevelopments along the 1st Avenue N and Meridian Avenue corridors result in a net increase of 405 housing units (280 as part of the *Shoreline 147th Apartments*, 66 units as part of the *Shoreline Townhomes* project, and 59 housing units of the proposed project) representing approximately 18 percent of housing growth planned within the 145th Street Station Subarea Plan
- To mitigate impacts on systemwide planned transportation improvements, the *Shoreline 5 Degree Townhome* project would be required to pay a traffic impact fee of approximately \$415,692.76 based on current rates effective January 1, 2020.

Based on the above, it was determined that no further analysis of the *Shoreline 5 Degree Townhome* project is warranted. If you have any questions, comments, or concerns, please do not hesitate to contact me at (206) 361-7333 ext. 101.

ATTACHMENT A

Conceptual Site Plan

Site Vicinity Map in Context of 145th Street Subarea Plan





Development Information	Residential (Dwelling Units):			
	Existing Dwellings		Proposed Dwellings	
	Proposed Density (dwellings per acre)			
	# Single Family:		# Single Family:	
	# Multifamily:		# Multifamily:	
	Office / Employment (Square Feet):			
	Existing Office / Employment:		Proposed Office / Employment:	
	Retail & Services (Square Feet):			
	Existing Retail & Services:		Proposed Retail & Services:	
	PM Peak Hour Weekday vehicle Trips:			
	Existing Estimated Trips:	Future Estimated Trips:	Net New Trips:	Total Trips:
	Source of Trip Rate:		Transportation Impacts Consistent with Chapter 20.60.140:	
IIE Manual <input type="checkbox"/>	Other	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Signature (Applicant)				
Date:				

Part Two: Review Criteria (City to Complete)			
The City's SEPA Responsible Official may designate conforming projects as "planned actions," pursuant to RCW 43.21C.030, that meet the following conditions (Ordinance 707-185 th SSSP & Ordinance 752 – 145 th SSSP)			
Criteria (SMC)		Complies (if not explain on separate sheet and attach):	
The proposal is located within a planned action area as identified on the official zoning map.		Yes <input type="checkbox"/>	No <input type="checkbox"/>
The proposal is consistent with the City of Shoreline Comprehensive Plan and the applicable subarea plan.		Yes <input type="checkbox"/>	No <input type="checkbox"/>
The proposed uses & activities are consistent with those described in the planned action EIS & zoning requirements of Title 20.		Yes <input type="checkbox"/>	No <input type="checkbox"/>
The proposal is consistent with the cumulative planned action thresholds identified in Ordinances 609 (Town Center), 705 (Shoreline Place), 707 (185 th SSSP) & 752 (145 th SSSP).		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Dwelling Threshold: (2,214 units in 145 th) (2,190 units in 185 th) (1,000 units in Shoreline Place) (1,200 units in Town Center)		Dwellings Remaining:	

ATTACHMENT B

Detailed Trip Generation Estimates

ITE Trip Generation, 10th Edition, 2017
Pulte 5 Degrees Townhomes

Proposed	X	LU Code	AM Peak			PM Peak			Daily Trips	Daily Rate	AM Rate	PM Rate
			Enter	Exit	Trips	Enter	Exit	Trips				
Mid-Rise Multifamily	70	221	7	18	25	19	12	31	381	5.44	0.36	0.44
Single-Family Homes	-11	210	-2	-6	-8	-7	-4	-11	-104	9.44	0.75	0.99
	59											
Net Change in Trip Generation with Project			5	12	17	12	8	20	277			

Note: Trip generation rates during the peak hours of adjacent street traffic applied for residential uses. No statistical difference between average and fitted curve equations for size of development.

ATTACHMENT C

Traffic Impact Fee Estimates

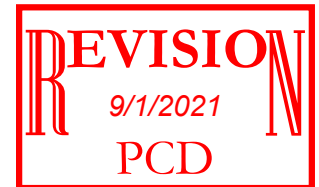
TENW Estimate of Traffic Impact Fees (Pulte 5 Degrees)

Proposed Uses	Size	Fee Per Unit	Impact Fee Estimate
Multi-family	70	\$ 7,045.64	\$ 493,194.80
			\$ 493,194.80
Current Site Uses	Size	Fee Per Unit	Impact Fee Credit
Single Family Homes	-11	\$ 7,045.64	\$ (77,502.04)
			\$ (77,502.04)
			\$ 415,692.76
Net Impact Fee Estimate			\$ 415,692.76

(City of Shoreline Rates Effective as of January 2020)

Project No. TS - 7546

Arborist Report



To: Pulte Group c/o Mariah Gill

Site: 5 Degrees, Shoreline WA

Re: Tree Inventory and Assessment for parcels:

777130-0110	2150 N 147TH ST 98133	12,237 sq ft
777130-0115	2142 N 147TH ST 98133	14,609 sq ft
777130-0125	2132 N 147TH ST 98133	14,052 sq ft
777130-0135	2122 N 147TH ST 98133	8,162 sq ft
777130-0140	2116 N 147TH ST 98133	8,163 sq ft
777130-0145	14710 MERIDIAN AVE N 98133	8,164 sq ft
777130-0150	14704 MERIDIAN AVE N 98133	8,164 sq ft
777130-0055	2105 N 148TH ST 98133	8,164 sq ft
777130-0060	14718 MERIDIAN AVE N 98133	8,164 sq ft
777130-0065	2117 N 148TH ST 98133	8,163 sq ft
777130-0070	2123 N 148TH ST 98133	8,162 sq ft

Date: April 9, 2021, Revised August 26, 2021 (changes highlighted)

Project Arborist: Holly Iosso, Registered Consulting Arborist # 567
ISA Certified Arborist #PN- 6298A
ISA Qualified Tree Risk Assessor

Connor McDermott,
ISA Certified Arborist #PN- 8704
ISA Qualified Tree Risk Assessor

Referenced Documents: Demo Site Plan G1.01 (Board & Vellum dated 2021.08.19)
Road and Grading Plan C3.01/C3.02 (CORE Design dated 2021.08.19)
Tree Protection Plan L0.1 (Board & Vellum dated 2021.08.19)
Landscape Site Plan L1.0 (Board & Vellum dated 2021.08.19)
Planting Plan L2.0 (Board & Vellum dated 2021.08.19)
Arborist Report (Gilles Consulting, March 2020)

Attached: Arborist Tree Table (Tree Solutions 8.11.2021)
Arborist Site Map (Tree Solutions 01.29.2021)
Tree Retention Calculation Worksheet (Revised 8.11.2021)

DEV20-1621

Summary

I inventoried and assessed 86 significant trees at the above addressed site. Based on the proposed plans for the site, 19 trees are proposed for retention. For this site, the minimum tree retention requirement states that 20 percent of significant trees must be retained (SMC 20.50.350). The current retention proposed for this site is 22 percent.

I assessed 5 significant trees on adjacent properties that had canopies overhanging the subject site. Trees on neighboring properties were documented if they appeared to be significant size and their driplines extended over the property line. All trees on adjacent properties were estimated from the subject site or public property such as the adjacent right-of-way (ROW). We used an alphabetical tree identifier for trees off-site.

In order to satisfy tree replacement requirements, 139 new trees must be planted on site, and 20 must be planted in the right of way. The plans show 110 new trees (less than required) on site and 33 new trees (more than required) in the right of way.

Assignment and Scope of Work

This report outlines the site inspection by Holly Iosso and Connor McDermott, of Tree Solutions Inc, on January 29, 2021 and Connor McDermott on March 2, 2021. We were asked to visit 11 parcels and assess the significant trees on, and adjacent to, the site. We were asked to produce an arborist report documenting our findings and recommendations, as well as respond to comments from the City. Mariah Gill, of Pulte Group, requested these services for project planning and permitting purposes.

This report replaces a previous arborist report submitted (Gilles Consulting, May 5, 2020).

Observations

Site

The subject site consists of 11 parcels, totaling 105,681 square feet, located within the city of Shoreline. The site is currently developed as residential, although the parcels are zoned MUD-35 according to King County IMAP parcel data. Based on the city of Shoreline GIS Interactive Map, no environmentally critical areas exist on these parcels.

Trees

The tree species on site include western redcedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), bigleaf maple (*Acer macrophyllum*), western yew (*Taxus brevifolia*), grand fir (*Abies grandis*), Pacific dogwood (*Cornus nuttallii*), apple (*Malus domestica*), flowering cherry (*Prunus serrulata*), Alaskan cedar (*Chamaecyparis nootkatensis*), Norway spruce (*Picea abies*), and cherry laurel (*Prunus laurocerasus*).

The trees were in varying health and structural condition from poor to good. Of these trees, 14 qualify for Landmark Tree status due to size.

Offsite Trees

Tree species in the right of way (ROW) consist of saucer magnolia (*Magnolia x soulangiana*), red maple (*Acer rubrum*), European birch (*Betula pendula*), common hawthorn (*Crataegus monogyna*), cherry plum

(*Prunus cerasifera*), European mountain ash (*Sorbus aucuparia*), deodar cedar (*Cedrus deodara*), and flowering cherry.

Offsite trees include three Douglas-fir trees west of lot 777130-0110 (2150 N 147th St), a Pacific dogwood and cherry laurel west of lot 777130-0070 (2123 N 148th St), and a Douglas-fir tree north of lot 777130-0125 (2132 N 147th St). All will be retained and protected.

Offsite tree 'D' adjacent to 2127 N 148th St is a 9-inch cherry laurel (*Prunus laurocerasus*). It is a non-conifer (broadleaf evergreen) and therefore not "significant". The species is often planted as a shrub. This plant can be pruned at the property line, and will remain viable.

We have included an aerial photograph / survey of the site to serve as the site map and attached a table of trees that has detailed information about each tree.

Discussion—Construction Impacts

I reviewed site and landscape plans dated 8/19/2021 and civil plans dated 8/19/2021 and believe if tree protection measures are followed as described below, and in the attached addendum dated 8/11/2021, retained trees will remain stable and viable long-term. There will be two clusters of trees retained: one on the southeast end of the project protecting a group of on and off-site trees, and a portion of a grove retained in the center of the property.

The grove on the southeast side is an open-grown group of 6 mature conifers, all of which will be retained. The proposed driveway has been moved west to allow adequate tree protection of these trees. Grading for the driveway will require root cutting of the large Doug-fir (#503) approximately 15 feet from the tree. An arborist should be present for initial demolition of the asphalt driveway and required grading in this area. The arborist will confirm that no large roots are ripped during the demolition process, and they should document the size and location any structural roots that must be cut for required grading.

The additional wind and solar exposure caused by the construction of this proposed development will be negligible for these trees. Root loss will be minimized by protecting the entire soil mass shared by the grove.

The grove in the center of the site is currently protected by houses and mature Douglas-fir and western redcedar trees to the south and west. They all have a low live crown ratios with tall, slim trunks because they have grown in forested conditions. Adjacent tree removals will impact them. I anticipate that the trees will respond and there will be an initial increase in branch breakage, the quantity and frequency which will taper off after several storms. The risk from these falling branches will be relatively low because they are small diameter branches.

These trees will respond to the increased sunlight by releasing latent buds along the trunks and branches. This new growth is critical to tree health and will help the trees remain stable by increasing trunk taper. New adventitious growth along trunks and branches must NOT be pruned out or removed.

I believe there is adequate soil and roots that will be protected with this recent plan set to maintain tree stability during normal weather events. I do not believe the trees will be subject to windthrow, and the risk of entire tree failure will be low.

Path

I have reviewed landscape plans (Board & Vellum dated 04.07.2021). There is a proposed path within the protected tree grove. This path should be installed with minimal disturbance to the soil, roots, and plants in these areas. The path should be a porous material, and should be installed at grade without edging, root barriers, plastic underlayment, compaction or application of herbicides or growth inhibitors. Path should be natural by nature and should be installed by hand-methods only.

Tree Retention

This lot requires that 20% of significant trees be retained.

The City may grant reductions or adjustments to other site development standards if more than 20% of trees on site are retained (SMC 20.50.350 C). Adjustments may include:

1. Reductions or variations of the area, width, or composition of required open space and/or landscaping;
2. Variations in parking lot design and/or any access driveway requirements;
3. Variations in building setback requirements;
4. Variations of grading and stormwater requirements.

Tree Protection

There is a Tree Protection Plan (sheet L0.1 Board and Vellum, dated 4.7.2021). This plan sheet outlines tree removals, tree protection limits and tree protection specifications. This plan sheet is critical to ensure that adequate tree protection is followed through the course of construction and should be relied upon during all phases of construction.

Retained on-site trees and off-site trees are subject to the tree protection provisions of SMC 20.50 and must be protected. Protection must be established at the driplines (SMC 20.50.370) or at the allowable TPZ listed in the Arborist Tree Table. The TPZ metric was determined individually per tree based on species tolerance to construction and relative age class as outlined in the ISA Best Management Practices: Managing Trees During Construction (Fite & Smiley 2016). These parameters are what guided the location of tree protection fencing and tree protection zones as drawn on the tree protection plan. If fencing is drawn within the dripline or TPZ, fencing extends further in a different part of the root zone to accommodate for this encroachment. Fencing should not deviate from these locations without consent from the project arborist.

All TPZ areas will require 6-foot tall chainlink fencing, tree protection signage on that fencing, and 4-6 inches of arborist wood chips installed **at the beginning of the project**, prior to any mobilization on site. This area will require supplemental irrigation during each dry season during construction as well as 3 years following construction completion.

There can be no disturbance within the tree protection zone, and minimal planting of new plants. All soil and existing vegetation within these areas are protected. Excavation, grubbing, fill, dumping, staging, material storage, pedestrian, and vehicular access are all prohibited in these areas. If the tree protection zone established is larger than the minimum listed in the Arborist Tree Table, the project arborist may approve some minor activity in these outer areas if they are monitored by an arborist.

Demolition and removal of the existing shed in the tree protection area must be by hand. Small backhoe may be used if adequate soil protection is in place. Regardless of method, arborist must be present during this removal.

I recommend that an arborist be required to be present during the initial pre-construction meeting to confirm tree protection mulch, fencing and signage is adequately in place. Additionally, an arborist should be scheduled for routine site visits bi-monthly during the initial demolition and grading phase. Successful tree retention relies on regular contact between the contractor and the project arborist.

See Appendix F for specifications that should be put on construction documents.

Tree Removals and Calculations

The majority of the site is proposed for clearing, leaving a grove of trees in the center of the site as well as a grove on the southeast corner. The cluster on the southeast end includes 3 offsite trees growing with adjacent on-site trees. All other trees will be removed.

Table 1. Significant Trees (excludes ROW or offsite trees adjacent to parcel)

		Calculation	Source
Trees on Lot (total)	86		
Removals (qty of significant trees) - A	67		
Retained (qty of significant)	19*		
% Retained	22%	Retained / Total	
Replacement exemption (B)	16	(105,681 sq ft – 7200 sq ft / 7200 sq ft) + 3 Rounded down.	Pre-Application Letter from Cate Lee dated March 13, 2020
Trees requiring replacement	51	# Removals – # Exemption	
Replacement Trees	139		See Table 2 below.

**Retention requirements may be reduced if the director allows. Trees on private property that need to be removed due to required frontage improvements do not count towards the retention requirements (see SMC Exception 20.50.350(B)(5)). These calculations do not account for any removals required for frontage improvements.*

Tree Replacement

For all clearing activities, tree replacement is required. In order to satisfy the replacement requirements, one tree must be planted for each significant tree removed. For trees larger than minimum significant size every additional 3 inches diameter requires one additional replacement tree. The maximum number of replacement trees required is up to three trees.

The following replacement calculations are only for on-site tree planting and do not account for right of way removals or required street tree planting.

Table 2. Replacement Calculations (excludes ROW or offsite trees adjacent to parcel)

		Calculations	Replacement Trees
Removals (qty of significant trees) - A	67		
Removals (Landmark)	15	$15 \times 3 = 45$	45
Removals (Significant - 3 replacements req'd)	42 – 16*	$26 \times 3 = 78$	78
Removals (Significant - 2 replacements req'd)	6	$6 \times 2 = 12$	12
Removals (Significant - 1 replacements req'd)	4	$4 \times 1 = 4$	4
Total			139

*# of exemptions

Table 3. Replacement Calculations (ONLY ROW trees)

		Calculations	Replacement Trees
Removals (qty of trees > 6" diameter)	12		
Removals (Landmark)	1	$1 \times 3 = 3$	3
Removals (Significant - 3 replacements req'd)	3	$3 \times 3 = 9$	9
Removals (Significant - 2 replacements req'd)	0	$0 \times 2 = 0$	0
Removals (Significant - 1 replacements req'd)	0	$0 \times 1 = 0$	0
Removals (Non-significant but > 6" diameter – 1 replacement req'd)	8	$8 \times 1 = 8$ *	8
Total			20

*SMC 12.30.040 (B)(4) states "all existing trees six inches in diameter... or greater...shall be replaced... following the replacement formula in SMC 20.50.360(C)(1-3)." However SMC 20.50.360 only defines replacement values starting with significant-size conifers >8" and significant-sized non-conifers >12". The calculation in this table assumes the intent of the code is that non-significant trees in the ROW >6" should be replaced at a 1:1 ratio.

Replacement Tree Calculation Examples (SMC 20.50.360):

Conifer Tree

Size	Replacement Trees
8 inches	1
11 inches	2
14 + inches	3

Non-conifer Tree

Size	Replacement Trees
12 inches	1
15 inches	2
18 + inches	3

Minimum size requirements for deciduous replacement trees must be at least 1.5 inches in caliper and coniferous replacement trees must be at least 6 feet in height. All replacement trees must meet or

exceed current American Nursery and Landscape Association or equivalent organization's standards for nursery stock.

There are 110 new site trees on the proposed planting plan (L2.0 Planting Plan / Board and Vellum dated 08.19.2021), which is 29 less than the 139 required. Therefore, because of the site constraints, I recommend that a reduction to the replacement tree requirements be requested.

Due to limited space, the proposed building dimensions, and the extensive tree protection area where large new trees should not be planted, it would not likely be possible to plant this quantity of trees on the project site. Overcrowding the site with large trees could result in future conflicts with infrastructure and a poor long term tree planting. In some cases, the City will allow a reduction to the required replacement trees or permit planting at an off-site location.

In addition to 110 new site trees, there are 32 new street trees on the planting plan. This is 12 trees more than the 20 required to replace the 12 tree removals within the right of way per SMC 12.30.040 and SMC 20.50.350(B)(5).

Respectfully submitted,

Holly Iosso
Consulting Arborist

Appendix A Glossary

DBH or DSH: The diameter of any tree trunk, measured at four and one-half feet above average grade. For species of trees whose normal growth habit is characterized by multiple stems (e.g., hazelnut, vine maple) diameter shall mean the average diameter of all stems of the tree, measured at a point six inches from the point where the stems digress from the main trunk. In no case shall a branch more than six inches above average grade be considered a stem. For the purposes of Code enforcement, if a tree has been removed and only the stump remains, the size of the tree shall be diameter of the top of the stump (Shoreline Municipal Code 20.20.016)

dripline: An area encircling the base of a tree, the minimum extent of which is delineated by a vertical line extending from the outer limit of a tree's branch tips down to the ground (Shoreline Municipal Code 20.20.016)

ISA: International Society of Arboriculture

tree: A self-supporting woody plant characterized by one main trunk or, for certain species, multiple trunks, with a potential at maturity for a trunk diameter of two inches and potential minimum height of 10 feet (Shoreline Municipal Code 20.20.048).

tree, broadleaf: Trees with flat leaves, not scaled or needle shaped, which usually lose their foliage at the end of the growing season. Examples include maples, alders, willows, and Pacific Madrone (Shoreline Municipal Code 20.20.048).

tree, canopy: The total area of the tree or trees where the leaves and outermost branches extend, also known as the "dripline" (Shoreline Municipal Code 20.20.048).

tree, coniferous: Any of various mostly needle-leaved or scale-leaved, chiefly evergreen, cone-bearing gymnospermous trees, such as pines, spruces, and firs (Shoreline Municipal Code 20.20.048).

tree, deciduous: Trees that shed or otherwise lose their foliage at the end of the growing season, such as maples, alders, oaks, and willows (Shoreline Municipal Code 20.20.048).

tree, evergreen: Trees that maintain the majority of their foliage each year when grown in the Shoreline area. Examples of evergreen trees include pines, firs, Douglas fir, and the Pacific Madrone (Shoreline Municipal Code 20.20.048).

tree, hazardous: A tree that is dead, or is so affected by a significant structural defect or disease that falling or failure appears imminent, or a tree that impedes safe vision or traffic flow, or that otherwise currently poses a threat to life or property (Shoreline Municipal Code 20.20.048).

tree, landmark: Any healthy tree over 30 inches in diameter at breast height or any tree that is particularly impressive or unusual due to its size, shape, age, historical significant or any other trait that epitomizes the character of the species, or that is an regional erratic (Shoreline Municipal Code 20.20.048).

tree, significant: Any tree eight inches or greater in diameter at breast height if it is a conifer and 12 inches or greater in diameter at breast height if it is a non-conifer excluding those trees that qualify for complete exemptions from Chapter 20.50 SMC, Subchapter 5, Tree Conservation, Land Clearing, and Site Grading Standards, under SMC 20.50.310(A). (Ord. 669 § 1 (Exh. A), 2013). (Shoreline Municipal Code 20.20.048)

tree, stand or cluster: A group of three or more trees of any size or species, whose driplines touch (Shoreline Municipal Code 20.20.048)

Appendix B References

Accredited Standards Committee A300 (ASC 300). ANSI A300 (Part 1) Tree, Shrub, and Other Woody Plant Management – Standard Practices (Pruning). Londonderry: Tree Care Industry Association, 2017.

Fite, Dr. Kelby and Dr. E. Thomas Smiley. Best Management Practices: Managing Trees During Construction, Second Edition. Champaign, IL: International Society of Arboriculture (ISA), 2016.

Shoreline Municipal Code (SMC)

- | | |
|-----------|--|
| 12.30.040 | Right-of-way street trees |
| 20.50.350 | Development standards for clearing activities. |
| 20.50.360 | Tree replacement and site restoration. |
| 20.50.370 | Tree protection standards. |
| 20.80 | Critical areas. |

Appendix C Site Map / Photos

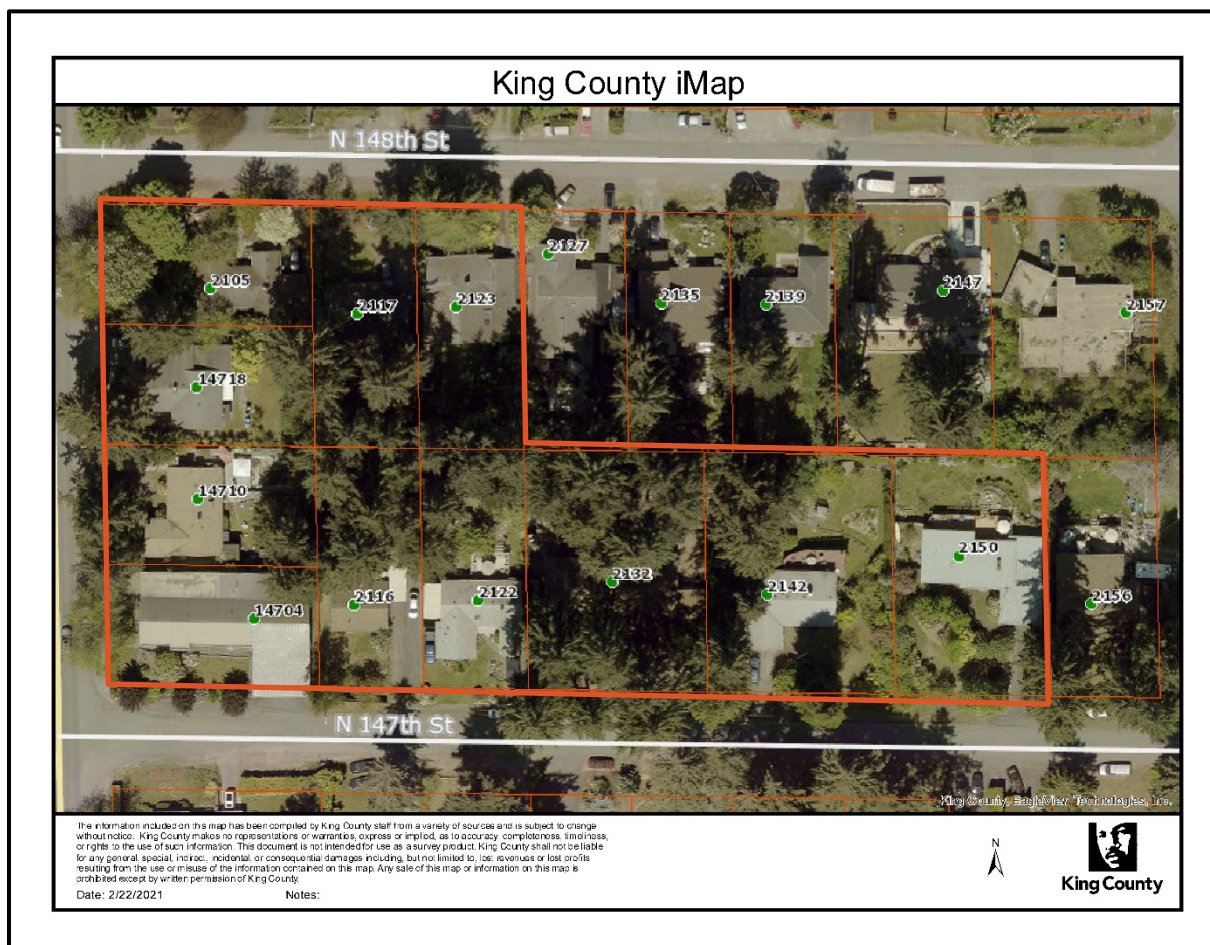


Figure 1. Aerial photograph from King County iMAP GIS the subject site is site is outlined in red (Accessed 2/22/2021).



Photograph 1. Trees A, B, and C are east of parcel 777130-0110.



Photograph 2. Tree D, the laurel in the foreground, has canopy that overhangs parcel 777130-0070.



Tree E

Photograph 3. Tree E is east of parcel 777130-0070.



Tree F

Photograph 4. Tree F is north of fence and parcel 777130-0125.



Photograph 5. Tree 8987 on parcel 777130-0055 is only one tree, mis-drawn on the survey as two trees. This is one tree with a codominant union near the base.



Photograph 6. Tree 98 is a non-significant cherry laurel on parcel 777130-0135

Appendix D Assumptions & Limiting Conditions

- 1 Consultant assumes that the site and its use do not violate, and is in compliance with, all applicable codes, ordinances, statutes or regulations.
- 2 The consultant may provide a report or recommendation based on published municipal regulations. The consultant assumes that the municipal regulations published on the date of the report are current municipal regulations and assumes no obligation related to unpublished city regulation information.
- 3 Any report by the consultant and any values expressed therein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event, or upon any finding to be reported.
- 4 All photographs included in this report were taken by Tree Solutions, Inc. during the documented site visit, unless otherwise noted. Sketches, drawings and photographs (included in, and attached to, this report) are intended as visual aids and are not necessarily to scale. They should not be construed as engineering drawings, architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by the consultant as to the sufficiency or accuracy of the information.
- 5 Unless otherwise agreed, (1) information contained in any report by consultant covers only the items examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring.
- 6 These findings are based on the observations and opinions of the authoring arborist, and do not provide guarantees regarding the future performance, health, vigor, structural stability or safety of the plants described and assessed.
- 7 Measurements are subject to typical margins of error, considering the oval or asymmetrical cross-section of most trunks and canopies.
- 8 Tree Solutions did not review any reports or perform any tests related to the soil located on the subject property unless outlined in the scope of services. Tree Solutions staff are not and do not claim to be soils experts. An independent inventory and evaluation of the site's soil should be obtained by a qualified professional if an additional understanding of the site's characteristics is needed to make an informed decision.
- 9 Our assessments are made in conformity with acceptable evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.

Appendix E Methods

Measuring

We measured the diameter of each tree at 54 inches above grade, diameter at standard height (DSH). If a tree had multiple stems, we measured each stem individually at standard height and determined a single-stem equivalent diameter for each tree. For species with a typical habit of one trunk, we used the quadratic formula as discussed in the Guide for Plant Appraisal. For species typically with a multi-stem habit, we provided an average of the stem diameters (SMC 20.20.016 D – DBH). The method used for each tree is noted in the Arborist Tree Table in the column titled “Multi-stem calculation method”.

A tree is regulated based on this single-stem equivalent diameter value. Because this value is calculated in the office following field work, some non-significant trees may be included in our data set. These trees are included in the tree table for informational purposes only and not factored into tree totals discussed in this report.

Tagging

Trees were numbered and tagged before our site visit by a different arborist. During our site visit, we confirmed each tree had a tag, and if there was one missing, we re-tagged the tree with a rectangular aluminum tag at eye level. We used the numerical identifier previously assigned to each tree on our map and in our tree table, corresponding to this tree tag.

We used alphabetical identifiers for trees off-site. Offsite trees are not tagged.

Flagging

We flagged each tree with yellow flagging that was slated for removal according to the most recent plan set as of the date of our site visit.

Evaluating

We evaluated tree health and structure utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to a weak spot or area of mechanical stress. A tree reacts to mechanical and physiological stresses by growing more vigorously to re-enforce weak areas, while depriving less stressed parts. An understanding of the uniform stress allows the arborist to make informed judgments about the condition of a tree.

Rating

When rating tree health, we took into consideration crown indicators such as foliar density, size, color, stem and shoot extensions. When rating tree structure, we evaluated the tree for form and structural defects, including past damage and decay. Tree Solutions has adapted our ratings based on the Purdue University Extension formula values for health condition (*Purdue University Extension bulletin FNR-473-W - Tree Appraisal*). These values are a general representation used to assist arborists in assigning ratings.

Excellent - Perfect specimen with excellent form and vigor, well-balanced crown. Normal to exceeding shoot length on new growth. Leaf size and color normal. Trunk is sound and solid. Root zone undisturbed. No apparent pest problems. Long safe useful life expectancy for the species.

Good - Imperfect canopy density in few parts of the tree, up to 10% of the canopy. Normal to less than ¾ typical growth rate of shoots and minor deficiency in typical leaf development. Few pest

issues or damage, and if they exist they are controllable or tree is reacting appropriately. Normal branch and stem development with healthy growth. Safe useful life expectancy typical for the species.

Fair - Crown decline and dieback up to 30% of the canopy. Leaf color is somewhat chlorotic/necrotic with smaller leaves and "off" coloration. Shoot extensions indicate some stunting and stressed growing conditions. Stress cone crop clearly visible. Obvious signs of pest problems contributing to lesser condition, control might be possible. Some decay areas found in main stem and branches. Below average safe useful life expectancy

Poor - Lacking full crown, more than 50% decline and dieback, especially affecting larger branches. Stunting of shoots is obvious with little evidence of growth on smaller stems. Leaf size and color reveals overall stress in the plant. Insect or disease infestation may be severe and uncontrollable. Extensive decay or hollows in branches and trunk. Short safe useful life expectancy.

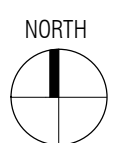
Appendix F Tree Protection Specifications

The following is a list of protection measures that must be employed before, during and after construction to ensure the long-term viability of retained trees.

1. **Project Arborist:** The project arborists shall at minimum have an International Society of Arboriculture (ISA) Certification and ISA Tree Risk Assessment Qualification.
2. **Tree Protection Zone (TPZ):** The TPZ shall be delineated by the project arborist as defined by the International Society of Arboriculture (SMC 20.50.370B). Work within the TPZ must be approved and monitored by the project arborist.
3. **Tree Protection Fencing:** Tree protection shall consist of 6-foot chain-link fencing installed at the TPZ as approved by the project arborist. Fence posts shall be anchored into the ground or bolted to existing hardscape surfaces.
 - a. Where trees are being retained as a group the fencing shall encompass the entire area including all landscape beds or lawn areas associated with the grove.
 - b. Per arborist approval, TPZ fencing may be placed at the edge of existing hardscape within the TPZ to allow for staging and traffic.
 - c. If the TPZ fencing must be moved for any reason, the project arborist must be present. This ensures that work within the TPZ is completed to specification.
 - d. Where trees are protected at the edge of the project boundary, construction limits fencing shall be incorporated as the boundary of tree protection fencing.
4. **Access Beyond Tree Protection Fencing:** In areas where work such as installation of utilities is required within the TPZ, a locking gate will be installed in the fencing to facilitate access. The project manager or project arborist shall be present when tree protection areas are accessed.
5. **Tree Protection Signage:** Tree protection signage shall be affixed to fencing every 20 feet. Signage shall be fluorescent, at least 2' x 2' in size, with 3" tall text. Signage will note: "Tree Protection Area – Do Not Enter: Entry into the tree protection area is prohibited unless authorized by the project manager." Signage shall include the contact information for the project manager and instructions for gaining access to the area.
6. **Filter / Silt Fencing:** Filter / silt fencing within the TPZ of retained trees shall be installed in a manner that does not sever roots. Install so that filter / silt fencing sits on the ground and is weighed in place by sandbags or gravel. Do not trench to insert filter / silt fencing into the ground.
7. **Monitoring:** The project arborist shall monitor all ground disturbance at the edge of or within the TPZ, including where the TPZ extends beyond the tree protection fencing.
8. **Soil Protection:** No parking, foot traffic, materials storage, or dumping (including excavated soils) are allowed within the TPZ. Heavy machinery shall remain outside of the TPZ. Access to the tree protection area will be granted under the supervision of the project arborist. If project arborist allows, heavy machinery can enter the area if soils are protected from the load. Acceptable methods of soil protection include applying 3/4-inch plywood over 4 to 6 inches of wood chip mulch or use of AlturnaMats® (or equivalent product approved by the project arborist). Retain existing paved surfaces within or at the edge of the TPZ for as long as possible.
9. **Duff/Mulch:** Apply 4-6 inches of arborist wood chip mulch or hog fuel over bare soil within the TPZ to prevent compaction and evaporation. TPZ shall be free of invasive weeds. Keep mulch 1 foot away from the base of trees and 6 inches from the base of retained understory vegetation. Retain and protect as much of the existing duff and understory vegetation as possible.
10. **Soil Remediation:** Soil compacted within the TPZ of retained trees shall be remediated using pneumatic air excavation according to a specification produced by the project arborist.

11. **Canopy Protection:** Where fencing is installed at the limits of the TPZ, canopy management (pruning or tying back) shall be conducted at a minimum to ensure that vehicular traffic, scaffolding, cranes or aerial lines do not damage canopy parts. Exhaust from machinery shall be located five feet outside the dripline of retained trees. No exhaust shall come in contact with foliage for prolonged periods of time.
12. **Excavation:** Excavation done at the edge of or within the TPZ shall use alternative methods such as pneumatic air excavation or hand digging. If heavy machinery is used, use flat front buckets with the project arborist spotting for roots. When roots are encountered (inside or outside of the TPZ), STOP EXCAVATION and cleanly sever roots before proceeding. Avoid ripping roots at all costs. The project arborist shall monitor all excavation done within the TPZ.
13. **Fill:** No fill is allowed within the TPZ of retained trees.
14. **Root Pruning:** Limit root pruning to the extent possible. All roots shall be pruned with a sharp saw making clean cuts. Do not fracture or break roots with excavation equipment.
15. **Root Moisture:** Root cuts and exposed roots shall be immediately covered with soil, mulch, or clear polyethylene sheeting and kept moist. Water to maintain moist condition until the area is back filled. Do not allow exposed roots to dry out before replacing permanent back fill.
16. **Hardscape Removal:** Retain hardscape surfaces for as long as practical. Remove hardscape in a manner that does not require machinery to traverse newly exposed soil within the TPZ. Where equipment must traverse the newly exposed soil, apply soil protection as described in section 8. Replace fencing at edge of TPZ if soil exposed by hardscape removal will remain exposed for any period of time.
17. **Tree Removal:** All trees to be removed that are located within the TPZ of retained trees shall not be ripped, pulled, or pushed over. The tree should be cut to the base and the stump either left or ground out. A flat front bucket can also be used to sever roots around all sides of the stump, or the roots can be exposed using hydro or air excavation and then cut before removing the stump.
18. **Irrigation:** Retained trees will require supplemental water from June through September. Acceptable methods of irrigation include drip, sprinkler, or watering truck. Trees shall be watered three times per month during this time to keep the soil from becoming hydrophobic.
19. **Pruning:** Pruning required for construction and safety clearance shall be done with a pruning specification provided by the project arborist in accordance with American National Standards Institute ANSI-A300 2017 Standard Practices for Pruning. Pruning shall be conducted or monitored by an arborist with an ISA Certification.
20. **Landscaping:** No new plants may be planted within the TPZ without project arborist approval. Approved plant material must remain 6 feet from each trunk and be 1 gal or 4" pots. Do not grub out existing vegetation.
21. **Plan Updates:** All plan updates or field modification that result in impacts within the TPZ or change the retained status of trees shall be reviewed by the senior project manager and project arborist prior to conducting the work.
22. **Materials:** Contractor shall have the following materials onsite and available for use during work in the TPZ:

• Sharp and clean bypass hand pruners	• Shovels
• Sharp and clean bypass loppers	• Trowels
• Sharp hand-held root saw	• Clear polyethylene sheeting
• Reciprocating saw with new blades	• Burlap
	• Water



9858 REGISTERED ARCHITECT
Jeffrey A. Pelletier
JEFFREY ALFRED PELLETIER
STATE OF WASHINGTON

JURISDICTION STAMP AREA

14704 MERIDIAN AVE N
SHORELINE, WA 98133

OWNER:
PULTE HOMES
3535 FACTORIA BLVD SE
BELLEVUE, WA 98006

Tree Solutions Inc.
Tree Inventory
January 29, 2021

ISSUANCES

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ORIGINAL SHEET SIZE IS 22x34"

EXISTING SITE PLAN

SHEET NO.:

G1.00



Arborist Tree Table
5-Degrees
Shoreline, WA 98133

DSH (Diameter at Standard Height) is measured 4.5 feet above grade.
DSH for multi-stem trees are noted as a single stem equivalent, which is calculated by averaging all stem measurements if tree is often found in multi-stem habit. Otherwise calculated using the method defined in the Guide for Plant Appraisal, 10th Edition.
Letters are used to identify trees on neighboring property with overhanging canopies.
Dripline is measured from the outer-edge of the tree to the outermost extent of the canopy. For some trees, only avg dripline was collected.
Allowable TPZ (Tree Protection Zone) (8 or 12 x DSH, depending on species) was determined as outlined in the ISA Best Management Practices: Managing Trees During Construction. Some modifications were made based on species tolerance and site conditions.
***Replacement tree quantity does not account for replacement exemption. This value represents the number of replacement trees if the tree is removed and not exempt from replacement.**

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (inches)	DSH Multistem	Multi-stem calc method	Health Condition	Structural Condition	Average Dripline	Dripline Radius (feet)				Proposed Action TBD	Allowable TPZ (radius in ft) in case by case situation	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees * if tree is removed	Notes
											N	E	S	W					
98	777130-0135	2122 N 147TH ST	<i>Prunus laurocerasus</i>	Cherry laurel	6.7	8.2, 5, 7	Average	Good	Good	9					Remove	4	Non-significant	0	Collected data on this tree in response to reviewer's comment
501	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	36.0			Good	Good	30					Remove	24	Landmark	3	-
502	777130-0110	2150 N 147TH ST	<i>Picea abies</i>	Norway spruce	11.8			Good	Fair		4.5	6.5	14.0	12.0	Retain	8	Significant	2	Topped at 35 feet; pruned for powerline clearance
503	777130-0110	2150 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	37.0			Good	Good		15	16	11	20	Retain	25 (but as close as 14-15 ft is OK on the west if only encroached on one side of the tree)	Landmark	3	Some deadwood with 2 to 3 inch parts; shared canopy with offsite trees; dominant tree. Construction disturbance can get as close as 14-15 feet as show on the plans, but TPZ must remain parallel to the new driveway to increase protected area north and south of the closest cut.
504	777130-0110	2150 N 147TH ST	<i>Malus domestica</i>	Apple	9.2	11.5, 6.9	Average	Fair	Poor	10					Remove	6	Non-significant	0	Overpruned previously but maintenance lapsed and shoots extending from topping cuts
506	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	21.3			Good	Good	20					Remove	14	Significant	3	-
507	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	26.0			Good	Good	28					Remove	17	Significant	3	-
508	777130-0140	2116 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	40.2			Fair	Good	30					Remove	27	Landmark	3	Wire girdling trunk at 4.5 feet
509	777130-0140	2116 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	21.5			Good	Good	15					Remove	14	Significant	3	-
510	777130-0140	2116 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.2			Good	Good	15					Remove	19	Significant	3	-



Arborist Tree Table

5-Degrees

Shoreline, WA 98133

Attachment: L

Arborist: HI and CM

Date of Inventory: 01/29/2021

Table Revised 08/11/2021

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (inches)	DSH Multistem	Multi-stem calc method	Health Condition	Structural Condition	Average Dripline	N	E	S	W	Proposed Action TBD	Allowable TPZ (radius in ft) in case by case situation	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees * if tree is removed	Notes
511	ROW (777130-0150)	ROW (14704 Meridian Ave N)	<i>Prunus cerasifera</i>	Cherry plum	9.3			Fair	Fair	8					Remove	6	Non-significant (ROW)	1 (ROW)	Replacement calc. is 1 b/c it is ROW tree > 6"
512	ROW (777130-0150)	ROW (14704 Meridian Ave N)	<i>Prunus cerasifera</i>	Cherry plum	9.2			Fair	Fair	8					Remove	6	Non-significant (ROW)	1 (ROW)	Replacement calc. is 1 b/c it is ROW tree > 6"
513	ROW (777130-0150)	ROW (14704 Meridian Ave N)	<i>Prunus cerasifera</i>	Cherry plum	10.2			Fair	Fair	8					Remove	7	Non-significant (ROW)	1 (ROW)	Replacement calc. is 1 b/c it is ROW tree > 6"
514	ROW (777130-0150)	ROW (14704 Meridian Ave N)	<i>Acer rubrum</i>	Red maple	22.2			Good	Good	24					Remove	15	Significant (ROW)	3 (ROW)	Planted in right of way (ROW); surface roots to east towards sidewalk
515	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	32.0			Fair	Poor	20					Remove	21	Landmark	3	Heavy ivy; DSH measurement estimated through ivy
516	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	24.0			Fair	Poor	20					Remove	16	Significant	3	Heavy ivy; DSH measurement estimated through ivy
517	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.0			Fair	Poor	20					Remove	19	Significant	3	Heavy ivy; DSH measurement estimated through ivy
518	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	27.0			Fair	Poor	25					Remove	18	Significant	3	Heavy ivy; DSH measurement estimated through ivy
519	777130-0060	14718 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	29.8			Good	Good	25					Remove	20	Significant	3	-
520	777130-0060	14718 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	34.0			Good	Good	25					Remove	23	Landmark	3	-
521	777130-0060	14718 MERIDIAN AVE N	<i>Taxus brevifolia</i>	Western yew	11.0			Good	Good	10					Remove	7	Significant	1	-
522	ROW (777130-0055)	ROW (2105 N 148th)	<i>Acer rubrum</i>	Red maple	19.1			Good	Good	20					Remove	13	Significant (ROW)	3 (ROW)	-
523	777130-0055	2105 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	24.5			Good	Good	18					Remove	16	Significant	3	-

Arborist Tree Table
5-Degrees
Shoreline, WA 98133

EXHIBIT 5d
Attachmer
Arborist: HI and CM
Date of Inventory: 01/29/2021
Table Revised 08/11/2021

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (inches)	DSH Multistem	Multi-stem calc method	Health Condition	Structural Condition	Average Dripline	N	E	S	W	Proposed Action TBD	Allowable TPZ (radius in ft) in case by case situation	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees * if tree is removed	Notes
524	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	30.0			Good	Good	25					Remove	20	Landmark	3	DSH estimated due to limited access to tree
525	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	12.0			Good	Fair	10					Remove	8	Significant	2	-
7009	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	38.0			Good	Good	25					Remove	25	Landmark	3	-
8573	ROW (777130-0140)	ROW (2116 N 147TH ST)	<i>Betula pendula</i>	European white birch	10.1			Good	Poor	12					Remove	7	Non-significant (ROW)	1 (ROW)	Replacement calc. is 1 b/c it is ROW tree > 6"
8574	ROW (777130-0140)	ROW (2116 N 147TH ST)	<i>Crataegus monogyna</i>	Common hawthorn	9.2			Good	Fair	7					Remove	6	Non-significant (ROW)	1 (ROW)	Replacement calc. is 1 b/c it is ROW tree > 6"
8620	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	40.8			Good	Fair	30					Remove	27	Landmark	3	Codominant at 18 feet; potential decay down seem from union; included bark
8637	777130-0135	2122 N 147TH ST	<i>Prunus serrulata</i>	Flowering cherry	12.5			Good	Good	10					Remove	8	Significant	1	
8642	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	12.5			Poor	Fair	12					Remove	8	Significant	2	Broken out top; multiple tops present; multiple conks on trunk
8643	777130-0135	2122 N 147TH ST	<i>Prunus laurocerasus</i>	Cherry laurel	7.2			Good	Fair	12					Remove	5	Non-significant	0	
8645	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	10.6			Good	Good	12					Remove	7	Significant	1	-
8659	777130-0140	2116 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	24.5			Good	Good	20					Remove	16	Significant	3	-
8668	777130-0140	2116 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	28.8			Good	Fair	25					Remove	20	Significant	3	Wire girdled at 4.5 feet
8681	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	15.6			Good	Good	12					Remove	10	Significant	3	-
8682	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	14.0			Good	Good	12					Remove	9	Significant	2	-
8697	777130-0125	2132 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	24.2			Good	Poor	15					Remove	17	Significant	3	Pruned for line clearance
8698	777130-0125	2132 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	36.5			Good	Good	25					Remove	25	Landmark	3	Multistemmed at base; narrow union so measured as single stem

Arborist Tree Table

5-Degrees

Shoreline, WA 98133

EXHIBIT 5d

Attachme...

Arborist: HI and CM

Date of Inventory: 01/29/2021

Table Revised 08/11/2021

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (inches)	DSH Multistem	Multi-stem calc method	Health Condition	Structural Condition	Average Dripline	N	E	S	W	Proposed Action TBD	Allowable TPZ (radius in ft) in case by case situation	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees * if tree is removed	Notes
8699	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	32.7			Fair	Good	18					Remove	22	Landmark	3	Deadwood on bottom quarter of canopy
8701	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	30.3			Good	Good	25					Remove	20	Landmark	3	-
8702	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	26.5			Good	Good	12					Remove	18	Significant	3	-
8703	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	27.5			Good	Good	30					Remove	18	Significant	3	-
8704	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	14.2			Good	Good	15					Remove	9	Significant	3	-
8705	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	29.0			Good	Good	20					Remove	19	Significant	3	-
8706	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	17.0			Good	Good	10					Remove	11	Significant	3	-
8707	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.5			Good	Good	20					Remove	19	Significant	3	-
8708	777130-0125	2132 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	25.1	19.2, 16.1	Appraisal Guide	Good	Good	15					Remove	17	Significant	3	-
8766	777130-0115	2142 N 147TH ST	<i>Abies grandis</i>	Grand fir	26.0			Good	Good	15					Remove	17	Significant	3	-
8771	ROW 777130-0110	ROW (2150 N 147TH ST)	<i>Sorbus aucuparia</i>	European mountain ash	10.0	11,11,10,8	Average	Fair	Fair	15					Remove	7	Non-significant (ROW)	1 (ROW)	Multistemmed at base; in ROW; pruned for utilities; Replacement calc. is 1 b/c it is ROW tree > 6"
8803	777130-0110	2150 N 147TH ST	<i>Chamaecyparis nootkatensis</i>	Alaskan cedar	8.5			Good	Good	8					Retain	6	Significant	1	Young tree suppressed by Tree 503
8832	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	12.0			Good	Fair		17	17	13	8	Retain	8	Significant	2	-
8906	ROW (777130-0070)	ROW (2123 N 148TH ST)	<i>Cedrus deodara</i>	Deodar cedar	39.6	27.6, 28.4	Appraisal Guide	Good	Fair	25					Remove	19	Landmark (ROW)	3 (ROW)	-
8907	777130-0070	2123 N 148TH ST	<i>Magnolia x soulangiana</i>	Saucer magnolia	9.6			Good	Good	12					Remove	6	Non-significant	0	
8908	ROW (777130-0065)	ROW (2117 N148 ST)	<i>Pseudotsuga menziesii</i>	Douglas-fir	19.6			Good	Good	20					Remove	13	Significant (ROW)	3 (ROW)	-
8909	ROW (777130-0065)	ROW (2117 N148 ST)	<i>Pseudotsuga menziesii</i>	Douglas-fir	7.2			Good	Good	10					Remove	5	Non-significant (ROW)	1 (ROW)	Replacement calc. is 1 b/c it is ROW tree > 6"
8933	777130-0065	2117 N 148TH ST	<i>Prunus cerasifera</i>	Cherry plum	27.7			Fair	Fair	25					Remove	18	Significant	3	-



Arborist Tree Table

5-Degrees

Shoreline, WA 98133

Attachment

Arborist: HI and CM

Date of Inventory: 01/29/2021

Table Revised 08/11/2021

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (inches)	DSH Multistem	Multi-stem calc method	Health Condition	Structural Condition	Average Dripline	N	E	S	W	Proposed Action TBD	Allowable TPZ (radius in ft) in case by case situation	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees * if tree is removed	Notes
8960	ROW (777130-0055)	ROW (2105 N 148th)	<i>Prunus serrulata</i>	Flowering cherry	10.4			Good	Good	15					Remove	7	Non-significant (ROW)	1 (ROW)	Replacement calc. is 1 b/c it is ROW tree > 6"
8961	777130-0055	2105 N 148TH ST	<i>Cornus nuttallii</i>	Pacific dogwood	13.4	10.6, 8.2	Appraisal Guide	Good	Good	15					Remove	6	Significant	1	
8977	777130-0055	2105 N 148TH ST	<i>Prunus serrulata</i>	Flowering cherry	15.1			Good	Good	20					Remove	10	Significant	2	-
8986	777130-0055	2105 N 148TH ST	<i>Prunus serrulata</i>	Flowering cherry	24.9	13.1, 18.5, 9.8, 9.5	Appraisal Guide	Good	Fair	25					Remove	8	Significant	3	Multistemmed at base
8987	777130-0055	2105 N 148TH ST	<i>Acer macrophyllum</i>	Bigleaf maple	22.9	18.8, 13.1	Appraisal Guide	Good	Fair	24					Remove	11	Significant	3	Multistemmed 12 inches above base
9004	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	44.0			Good	Good	25					Remove	29	Landmark	3	-
9005	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	32.5			Good	Good	25					Remove	22	Landmark	3	-
9007	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	29.8			Good	Good	25					Remove	20	Significant	3	-
9008	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	24.8			Good	Good	20					Remove	17	Significant	3	-
9014	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	18.4			Good	Good	10					Remove	12	Significant	3	-
9096	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	21.8			Good	Good		13	12	17	15	Remove	15	Significant	3	-
9097	777130-0115	2142 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	30.8			Good	Good		12	19	18	20	Remove	21	Landmark	3	-
9098	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	9.8			Good	Fair		6	16	8	8	Retain	7	Significant	1	-
9099	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	31.8			Good	Good		10	20	23	20	Retain	21	Landmark	3	-
9100	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.3			Good	Good		19	25	10	18	Retain	19	Significant	3	-
9101	777130-0115	2142 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	9.0			Good	Fair		10	8	9	15	Retain	6	Significant	1	-
9102	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	15.0			Good	Fair		10	20	10	5	Retain	10	Significant	3	Suppressed by tree 9103; iterative top at 30 feet from base
9103	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	22.8			Good	Good		18	20	12	15	Retain	15	Significant	3	-
9104	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.3			Good	Good		16	15	10	13	Retain	19	Significant	3	



Arborist Tree Table

5-Degrees

Shoreline, WA 98133

Attachment 5

Arborist: HI and CM

Date of Inventory: 01/29/2021

Table Revised 08/11/2021

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (inches)	DSH Multistem	Multi-stem calc method	Health Condition	Structural Condition	Average Dripline	N	E	S	W	Proposed Action TBD	Allowable TPZ (radius in ft) in case by case situation	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees * if tree is removed	Notes
9169	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	18.5			Good	Fair		16	24	33	3	Retain	12	Significant	3	Top broken out at 25 feet; iterative branch growing as new top
9170	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	25.5			Good	Good		13	23	17	18	Retain	17	Significant	3	-
9171	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	25.7			Good	Good		24	11	10	18	Retain	17	Significant	3	-
9172	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	9.5			Good	Good		14	8	9	8	Retain	6	Significant	1	-
9173	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	18.4			Good	Good		13	8	5	4	Retain	12	Significant	3	-
9174	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	20.2			Good	Good		5	22	20	4	Retain	13	Significant	3	-
9175	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	26.2			Good	Good		15	11	23	25	Retain	17	Significant	3	-
9176	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.5			Good	Good		16	20	25	25	Retain	19 (14)	Significant	3	While 19 feet TPZ is ideal, disturbance can encroach as close as 14 feet on two sides of the tree due to change in topography / existing rockery.
9177	777130-0125	2132 N 147TH ST	<i>Tsuga heterophylla</i>	Western hemlock	26.8			Good	Fair		8	8	20	18	Remove	18	Significant	3	-
9178	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	22.2			Good	Good		11	13	12	12	Remove	15	Significant	3	-
9179	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	25.6			Good	Good		4	9	17	12	Remove	17	Significant	3	-
9180	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	33.8			Good	Good		28	21	12	20	Remove	23	Landmark	3	-
9182	777130-0125	2132 N 147TH ST	<i>Robinia pseudoacacia</i>	Locust	11.0			Good	Good	19					Remove		Non-significant	0	-
9183	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	20.3			Good	Good		12	2	14	20	Remove	14	Significant	3	
9184	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	13.0			Good	Fair		2	16	12	12	Remove	9	Significant	2	
9284	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	19.6			Good	Good	20					Remove	13	Significant	3	-

Arborist Tree Table

5-Degrees

Shoreline, WA 98133

EXHIBIT 5d

Attachment -

Arborist: HI and CM

Date of Inventory: 01/29/2021

Table Revised 08/11/2021

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (inches)	DSH Multistem	Multi-stem calc method	Health Condition	Structural Condition	Average Dripline	N	E	S	W	Proposed Action TBD	Allowable TPZ (radius in ft) in case by case situation	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees * if tree is removed	Notes
9285	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	23.5			Good	Good	20					Remove	16	Significant	3	-
9286	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	15.5			Good	Good	20					Remove	10	Significant	3	-
9292	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	22.9			Fair	Poor	20					Remove	15	Significant	3	Significant bird activity /excavation on stem
9293	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	29.5			Good	Good	25					Remove	20	Significant	3	-
9326	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	32.2			Good	Good		10	6	15	20	Remove	21	Landmark	3	
9327	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	27.1			Good	Fair		9	17	20	13	Remove	18	Significant	3	Codominant at 50 feet
9328	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	17.8			Good	Fair		6	5	7	7	Remove	12	Significant	3	-
9329	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	11.8			Good	Good		12	8	7	9	Remove	8	Significant	2	-
9330	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.6			Good	Fair		22	28	18	7	Remove	19	Significant	3	Codominant at 40 feet; invasive ivy at base
9552	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	7.2			Good	Fair		9	8	10	9	Remove	5	Non-significant	0	-
9897	777130-0055	2105 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	16.6			Good	Good	18					Remove	11	Significant	3	-
18620	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	23.0			Good	Good	19					Remove	16	Significant	3	Tagged as 8620.
A	Offsite (777130-0110)	Offsite (2150 N 147TH ST)	<i>Pseudotsuga menziesii</i>	Douglas-fir	20.0			Good	Good	15	13	-	15	16	Retain	13	Significant (Off Site)	0 (Offsite)	Borders property to east
B	Offsite (777130-0110)	Offsite (2150 N 147TH ST)	<i>Pseudotsuga menziesii</i>	Douglas-fir	13.0			Good	Good	11	10	-	12	12	Retain	9	Significant (Off Site)	0 (Offsite)	-
C	Offsite (777130-0110)	Offsite (2150 N 147TH ST)	<i>Pseudotsuga menziesii</i>	Douglas-fir	25.0			Good	Good	14	12	-	12	18	Retain	17	Significant (Off Site)	0 (Offsite)	-
D	Offsite (777130-0070)	Offsite (2123 N 148TH ST)	<i>Prunus laurocerasus</i>	Cherry laurel	9.0			Good	Good	15	12	-	14	18	Retain	7	Non-significant (Off Site)	0 (Offsite)	Diameter estimated from property line. One of the laurle branches extends over property line 20ft



Arborist Tree Table
5-Degrees
Shoreline, WA 98133

Attachment 5
Arborist: HI and CM
Date of Inventory: 01/29/2021
Table Revised 08/11/2021

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (inches)	DSH Multistem	Multi-stem calc method	Health Condition	Structural Condition	Average Dripline	N	E	S	W	Proposed Action TBD	Allowable TPZ (radius in ft) in case by case situation	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees * if tree is removed	Notes
E	Offsite (777130-0070)	Offsite (2123 N 148TH ST)	<i>Cornus nuttallii</i>	Pacific dogwood	13.0			Good	Good	14	16	-	15	10	Retain	7	Significant (Off Site)	0 (Offsite)	Reduced allowable TPZ to 7 ft due to existing compaction (driveway present). Reduction contingent on no soil disturbance within this area (no stump removal, wood chip mulch, tarps over exposed cuts, no irrigation lines within 6 ft of tree and new planting holes larger than 1 gal)
F	Offsite (777130-0125)	Offsite (2132 N 147TH ST)	<i>Pseudotsuga menziesii</i>	Douglas-fir	12.0			Good	Good	8	-	9	6	9	Retain	8	Significant (Off Site)	0 (Offsite)	Diameter estimated from other side of fence.

Project No. TS - 7546

Addendum – Arborist Report

To: Pulte Group c/o Mariah Gill
Site: 5 Degrees, Shoreline WA
Date: August 11, 2021
Project Arborist: Holly Iosso, Registered Consulting Arborist #567
ISA Certified Arborist #PN- 6298A
ISA Qualified Tree Risk Assessor
Referenced: Arborist Report, (Iosso, Tree Solutions Inc. 4/9/2021)
Corrections letter response (Iosso, Tree Solutions Inc., 4/2/2021)
PLN20-0139 Correction Letter 2 (Lee, City of Shoreline, 7/23/2021)
Code references: Shoreline Municipal Code: Tree Conservation, Land Clearing and Site Grading
Standards (SMC 20.50.290 through .370)
Attached: Arborist Tree Table – **Revised 8/11/2021**
Tree Calculation Worksheet- Revised 8/10/2021
Arborist Report – Revised 8/11/2021

This addendum is in addition to the revised arborist report, authored by me, revised April 9, 2021. This addendum intends to clarify the information stated in that report and correct inconsistencies noted in the Correction Letter (PLN20-0139 Correction Letter 2 dated July 23, 2021).

The following are my responses to tree-related concerns by the city reviewer:

Reviewer comment:

26. There are three trees labeled #98 on Sheet L0.1. Please clarify/correct plans. I recommend doing a quality control check before submitting the next revisions to make sure there are no other instances like this—when I do my follow-up site visit for trees items like this should be addressed.

Tree 98 is insignificant. Will be changed on plan to say 'not significant plant'.

Reviewer comment:

28.B Once all information is internally consistent, I will make a site visit to confirm.

We will need to revisit the site to confirm tree flagging has not been removed prior to the next site visit by the reviewer. Or visit the site in conjunction with the reviewer which is preferred.

DEV20-1621

Reviewer comment:

28 C. The arborist report states that a 9-foot TPZ is needed for Tree E, but Sheet L0.1 shows only a 7-foot TPZ is provided. Revise plans to comply with arborist report.

Tree E

I have modified the arborist tree table to allow disturbance within 7 ft of tree 'E'. I have approved this reduction because the existing area is heavily compacted and used as a driveway currently.

This increased allowance is contingent on the following:

1. No soil disturbance should occur within this area.
2. Adjacent vegetation (rhododendron) cannot be ripped from the ground if it is removed. It can be left as a stump or use of a stump grinder is acceptable.
3. Wood chip mulch (6" deep) must be in place throughout the TPZ prior to demolition.
4. The face of any soil cuts (whether roots are exposed or not) must be covered with clear plastic or tarps at all times to reduce drying out of the soil.
5. New irrigation lines in this area must be installed parallel to, and within 6 inches of, the new sidewalk. No irrigation trenches are allowed closer to the protected tree.
6. No new plants are allowed within this area unless they are less than or equal to 1 gal containers.
7. Tree must be irrigated as specified throughout construction until permanent irrigation is operational.

Reviewer comment:

31. There are still issues with trees proposed for retention being adequately protected per the arborist report and what is shown on Sheet L0.1. See table below. Please address these discrepancies in updated plans/arborist addendum.

The allowable tree protection zone and dripline are differentiated on the arborist tree table. One column is labelled 'dripline' and one is labelled 'Allowable TPZ'. The reviewer's comment mistakenly calls out dripline measurements as the limits of disturbance instead of using the 'Allowable TPZ'.

Tree 503

I added language to the tree table to further define the limits of allowable disturbance. For this tree, disturbance can go as close to the tree as 15 feet (with tree protection fencing established as close as 14 feet). But where tree protection for this tree can increase to 25 feet, it should increase (e.g. parallel to the new driveway).

This increased allowance is contingent on the following:

1. An arborist must be present during demolition.
2. Adjacent vegetation/understory plants cannot be ripped from the ground or grubbed out if removed. It can be left in place or cut at grade.
3. Wood chip mulch (6" deep) must be in place prior to demolition in the tree protection area.

4. The face of any soil cuts (whether roots are exposed or not) must be covered with clear plastic or tarps at all times to reduce drying out of the soil.
5. New irrigation lines in this area must be installed parallel and within 6 inches of the new driveway. No irrigation trenches are allowed closer to protected trees within the tree protection area.
6. No new plants are allowed within this area unless they are 1 gal containers or smaller.
7. Tree must be irrigated as specified throughout construction until permanent irrigation is operational.

Tree 8832

This Doug-fir is relatively young and can withstand more disturbance than older trees can. While the dripline to the east is 17 feet, the allowable tree protection zone can go as close as 8, as it does for the cut-out of building G. The tree is subdominant with a smaller canopy and there will be little increased risk from this tree if roots are cut in this area.

Tree 9175

Disturbance is proposed 21 feet from this tree. Allowable TPZ in arborist report notes limits of disturbance can be as close as 17 feet from the tree, if disturbed on one side. This is not the case here, and there is adequate root retention proposed.

Tree 9176

Tree protection fencing is proposed as close as 14 feet from this tree where there was an existing rockery and change in topography. Proposed tree protection zone is extensive to the north and in my opinion leaves adequate roots intact.

This increased allowance is contingent on the following:

1. Adjacent tree (tree 9177) cannot be ripped from the ground or grubbed out when removed. It can be cut at 10 feet and left in place as a wildlife snag, ground out with a stump-grinder or cut at grade.
2. Wood chip mulch (6" deep) must be in place prior to demolition in the tree protection area.
3. The face of any soil cuts (whether roots are exposed or not) must be covered with clear plastic or tarps at all times to reduce drying out of the soil.
4. New irrigation lines in this area must be installed parallel and within 6 inches of the new driveway. No irrigation trenches are allowed beyond this within the tree protection area.
5. New plants are allowed within this area but should be minimized and should be as small as possible.
6. Tree must be irrigated as specified throughout construction until permanent irrigation is operational.

Reviewer comment:

Within the tree protection fencing area indicated on plans there is a path and landscaping proposed. The arborist report addresses this briefly on Pages 3-4 of

the report, but plans don't address construction sequencing. Tree protection remains in place the duration of a site development permit, so how is the path and landscaping installed? Address in construction sequencing on plans (Sheet C2.31 and/or other appropriate sheets).

Construction sequencing: Tree protection fencing should be in place, prior to any disturbance on site. Demolition of existing fence and potting shed within tree protection area should be removed by hand AFTER fencing and soil protection (wood chip mulch and plywood) are in place. An arborist should approve tree protection fencing and soil protection prior to proceeding with demolition.

Temporary irrigation should be in place in April in preparation for any construction during the dry season.

Fencing around preserved tree grove should have 2 locked gates to allow selective entry into this area and key should be kept with project engineer on site. All installation of paths and new plant material should be via hand methods, using wheelbarrows to transport materials.

Fencing may be moved only after the completion of construction – including the landscape installation phase—and with approval by the project arborist.

Add notes to plan for trees 9180, 9182, 9178, 9179, 9177 that trees cannot be ripped from the ground when removed. Stumps should be ground with a stump grinder or cut at grade and left in place.

Adjacent vegetation/understory plants cannot be ripped from the ground or grubbed out if removed. They can be left in place or cut at grade. Wood chip mulch (6" deep) must be in place prior to demolition in the tree protection area. The face of any soil cuts (whether roots are exposed or not) must be covered with clear plastic or tarps at all times to reduce drying out of the soil.

New irrigation lines in this area must be installed parallel and within 6 inches of the new driveway. No irrigation trenches are allowed beyond this within the tree protection area.

No new plants are allowed within this area unless they are 1 gal containers or smaller.

Tree must be irrigated as specified throughout construction until permanent irrigation is operational.

Reviewer comments 29, 30, 35, 36, 37

Comments all mention that a revised Tree Retention Calculation Worksheet was not submitted. However, this was submitted. Tree retention calculations were all in submitted arborist report as well labelled as tables 1 and 2. (Therefore, these comments have already been addressed).

To summarize:

67 significant trees will be removed from the site (excluding ROW trees)

139 new trees are required to be planted on site (excluding the ROW)

There are 110 new site trees proposed on site (excluding ROW trees). Therefore, the applicant is requesting a reduction in tree replacements be allowed from 139 down to 110.

Tree Replacement reduction request criteria from SMC 20.50.360 (C):

- i. *There are special circumstances related to the size, shape, topography, location, or surroundings of the subject property*

Yes, the site is oddly shaped and considering the size of the site, meeting the minimum replacement goals would create a situation where trees would be competing with each other for space and would not be good candidates for long-term retention on the site. As noted below, there is a large canopy of existing conifers that require significant area for the tree protection zone and planting the required number of replacement trees on this site while avoiding this zone would make development of the site very difficult and inefficient.

There is mature tree canopy adjacent to the parcel to the east. This tree cover, while not applicable to tree retention calculations, limits the available planting area on the east of the site to plant new trees on-site. These neighboring trees benefit the site by increasing canopy coverage in the vicinity but limit the potential planting area for replacement trees. Newly planted trees in this area would compete for water and sunlight, and new planting holes would disturb established root systems.

- ii. *Strict compliance with the code may jeopardize reasonable use of property - ?*

The proposed landscape plan incorporates 110 out of the 139 required replacement trees. The area needed to plant an additional 29 trees on this site would require between 5000 and 20,000 sq feet¹, which is 5-19%² more of the project site. This would impede the ability to develop the property to the density allowed by the MUR-35 zoning. The required spacing of trees from buildings, each other, and driveways does not allow for full compliance while also allowing for the proposed and remaining trees to grow in a healthy manner.

In addition, the dimensions of the required fire access lane both horizontal and vertical, preclude the ability to comply with planting the required trees without severely impacting the ability of the fire department to safely and securely access all the townhomes on the project site. This would jeopardize the safety of the residents of the proposed homes along with the surrounding existing residences.

¹ Rounded to the nearest thousand. Calculated using canopy dimensions of a small tree (Serviceberry / *Amelanchier alnifolia*), and a medium tree (Hedge maple / *Acer campestre*) at maturity.

Small tree: 15 ft diameter. Square footage for a mature serviceberry = $(15/2)^2 \times 3.14 = 176.6$ sq ft

176.6 sq ft * 29 trees = 5122 sq feet

Medium tree: 30 ft diameter. Square footage for a mature hedge maple = $(30/2)^2 \times 3.14 = 706.5$ sq ft

706.5 sq ft * 29 trees = 20,489 sq feet

² Total area of site = 106,291 sq ft

% of site for 29 additional small trees: $(5122 \text{ sq ft} / 106,291 \text{ sq ft}) \times 100 \% = 4.8\%$

% of site for 29 additional medium trees: $(20,489 \text{ sq ft} / 106,291 \text{ sq ft}) \times 100 \% = 19\%$

- iii. *Proposed vegetation removal, replacement and any mitigation measure are consistent with the intent of the code –*

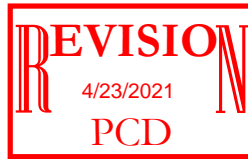
YES. The intent of the code is to keep tree canopy across the site where it can grow. The canopy of the existing conifers that are being protected far exceeds the tree canopy (in both quality and volume) of new deciduous trees. Conifers provide storm water management in the winter that small deciduous trees cannot provide. They also provide wildlife habitat, including nesting and perch opportunities that smaller trees will never be able to provide. Planting new trees within the tree protection zone and maximizing the number of trees per square foot of property, causes damage to existing root systems, increases competition for existing trees (sunlight, water, and nutrients), and fosters weaker, phototropic trees in an environment with increased disease potential. For these reasons, I do not advocate for over-planting this site, and have requested that new trees be minimally planted within tree protection zones.

- iv. *The granting of the standard reduction will not be detrimental to the public welfare –*

This is accurate. The proposed retention plan, in addition to the planting plan, will provide for heavy canopy cover at maturity, which is a benefit to the public, not a detriment.

Respectfully submitted,

Holly Iosso,
Consulting Arborist



Altmann Oliver Associates, LLC

PO Box 578

Carnation, WA 98014

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AOA

Environmental
Planning &
Landscape
Architecture



March 15, 2021

AOA-6217

Mariah Gill
Mariah.Gill@PulteGroup.com

**SUBJECT: Updated Critical Area Reconnaissance for 5 Degrees
Shoreline, WA Parcels 777130-0140, -0060, -0055, -0065, -0070, -0145,
-0150, -0115, -0135, -0125, and -0110 (Revised)**

Dear Mariah:

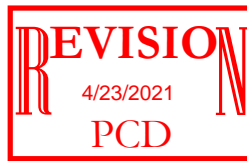
On May 26, 2020 I conducted an initial wetland and stream reconnaissance on the subject property utilizing the methodology outlined in the May 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*. No wetlands or streams were identified on or adjacent to the property during the field investigation.

The City of Shoreline subsequently requested that the reconnaissance report be updated to include any potential wetlands or streams located within 300 feet of the site, as well as any other Fish and Wildlife Habitat Conservation Areas (FWHCA) that may be located on or within 300 feet of the site. A second site review was conducted on March 2, 2021.

BACKGROUND REVIEW

Prior to conducting the field investigations, the following existing mapping sources were reviewed:

- City of Shoreline GIS Mapping. No wetlands, streams, or FWHCA indicated on or adjacent to site (**Attachment A**).
- National Wetland Inventory (NWI) mapping. No wetlands or streams on or adjacent to site (**Attachment B**).
- WA Department of Fish and Wildlife Priority Habitats and Species (PHS) Mapping. Indicates potential presence of little brown bat (*Myotis lucifugus*). The display resolution is on a Township wide basis and is not site specific (**Attachment C**).



EXISTING SITE CONDITIONS

The site is currently entirely developed with 11 single-family residences and associated yard areas. No significant intact native plant communities were observed on the site and native vegetation was generally restricted to scattered Douglas fir (*Pseudotsuga menziesii*), western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), and big-leaf maple (*Acer macrophyllum*) trees. No hydrophytic plant communities were observed on within 300 feet of the property.

Borings taken within yard areas revealed high chroma non-hydric soils and there was no evidence of ponding or prolonged soil saturation anywhere in the vicinity of the site.

FISH AND WILDLIFE HABITAT CONSERVATION AREAS

No federal or state endangered or threatened species have been identified as occurring on or adjacent to the site and no listed species were observed as likely to utilize the property during the field investigations. The PHS database indicated the potential presence of the little brown bat and public comment has indicated observation of pileated woodpeckers on or near the site.

Little Brown Bat

The little brown bat is one of the most common bats in WA and is found throughout the forested habitats of the state. In addition, little brown bats often utilize buildings and other structures both for day and night roosting. According to the WA Department of Fish and Wildlife, the “*range of the little brown myotis extends across most of North America from the forested portions of Alaska and northern Canada southward to California, Colorado, and the southeastern United States. The species occurs throughout Washington.*

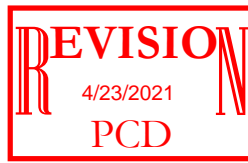
This species is a habitat generalist that uses a broad range of ecosystems. In Washington and Oregon, it occurs most commonly in both conifer and hardwood forests, but also occupies open forests, forest margins, shrubsteppe, clumps of trees in open habitats, sites with cliffs, and urban areas. Within these habitats, riparian areas and sites with open water are usually preferred. Elevations up to tree line are inhabited, with males being more common than females at higher elevations.

Since this bat occurs most commonly within forested habitats adjacent riparian areas or open water, the site is not a habitat of primary association. Although it is possible that the buildings and trees on the property are utilized for day or night roosting, the site does not contain a significant intact native plant community adjacent a riparian area or open water. The closest area to the site that may be of primary association is likely the Twin Ponds Park located well off-site to the northeast.

Pileated Woodpecker

Pileated woodpeckers (*Dryocopus pileatus*) generally inhabit mature and old-growth forests, and second-growth forests with large snags and fallen trees. The range of the species encompasses all of the forested areas of the state. Although typically found in larger forested tracts, they are known to occur in suburban habitats as well. Their key breeding habitat need is the presence of large snags or decaying live trees

Mariah Gill
Page 3 of 3
March 15, 2021



for nesting, as this species generally excavates a new nest cavity each year. The breeding and nesting periods of the pileated woodpecker extends from late March to early July.

Although some limited foraging potential is present, no evidence of pileated woodpecker nests were observed on the site during the field investigation and the lack of a significant concentration of large snags and the existing urban development limits the nesting potential of this species.

Conclusion

No wetlands or streams were identified on or within 300 feet of the site. This determination is based on a field investigation during which no hydrophytic plant communities, hydric soils, or evidence of wetland hydrology or channels were observed. In addition, no Fish and Wildlife Habitat Conservation Areas were identified on or within 300 feet of the site.

If you have any questions regarding the reconnaissance, please give me a call.

Sincerely,

ALTMANN OLIVER ASSOCIATES, LLC

A handwritten signature in black ink that reads "John Altmann". The signature is written in a cursive, flowing style.

John Altmann
Ecologist

King County iMap




King County, EagleView Technologies, Inc.

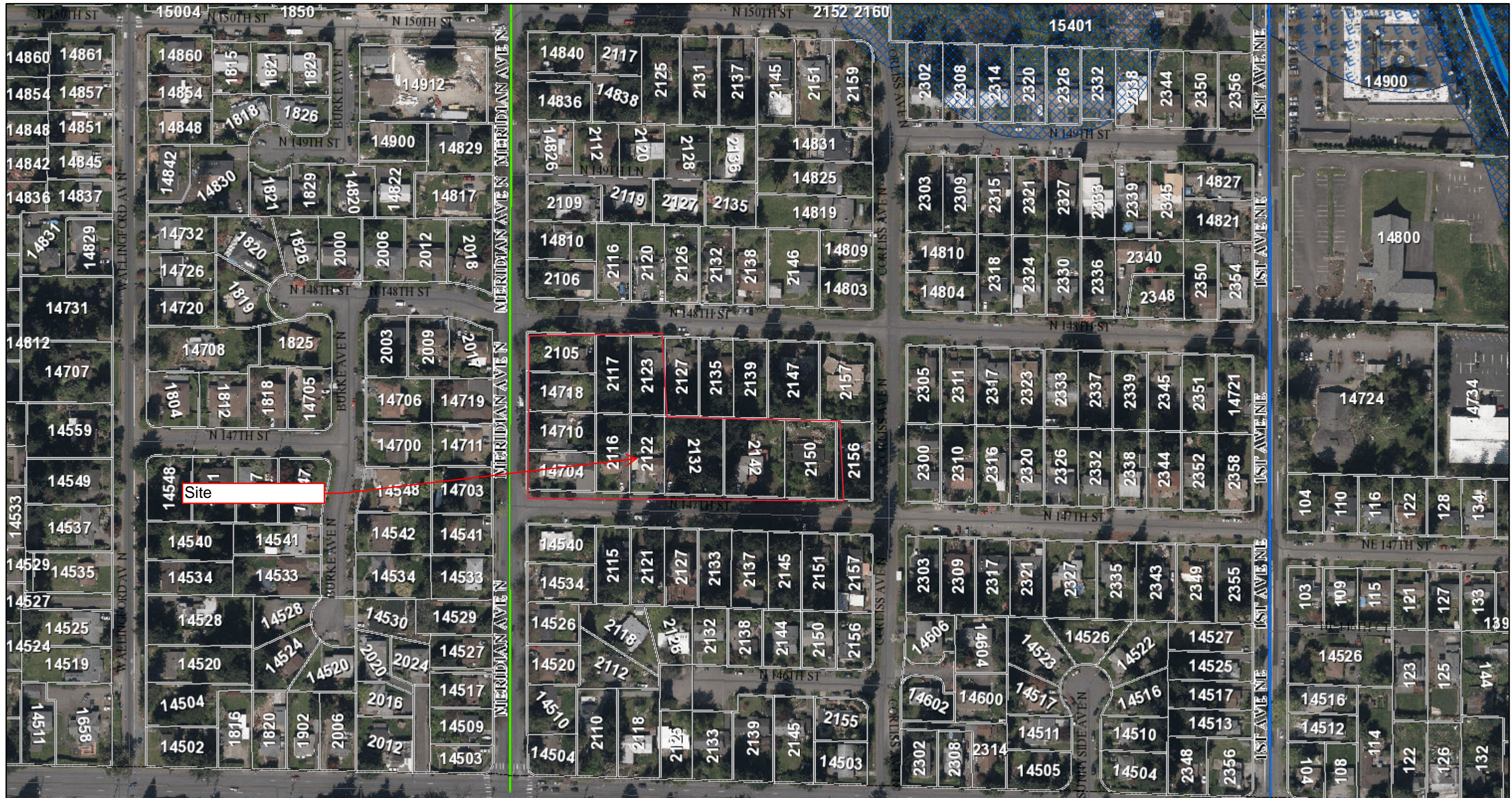
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Date: 5/27/2020

Notes:

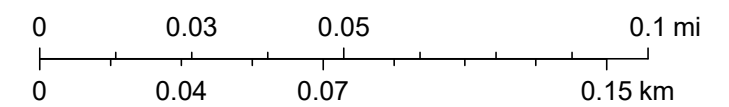
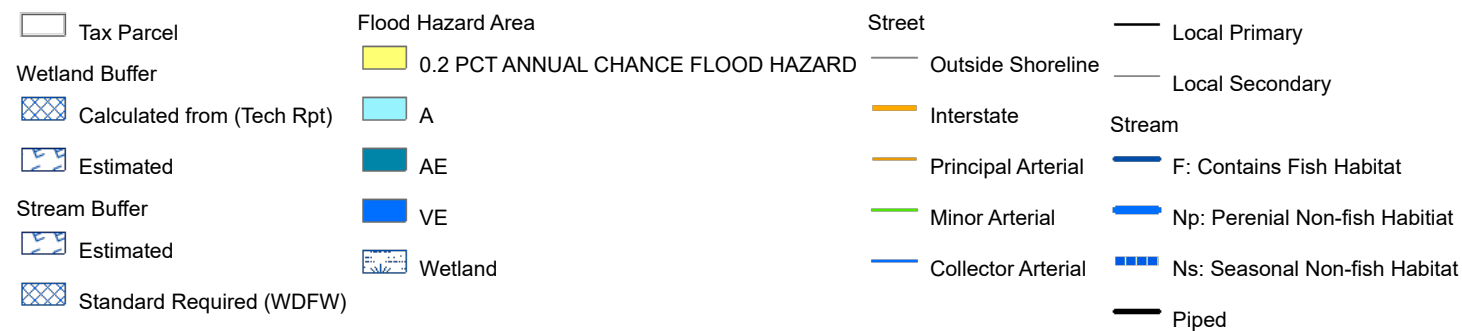
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King County



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PCD

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Web AppBuilder for ArcGIS
This map is intended for planning purposes only. No warranty is made concerning the accuracy, currency, or completeness of data depicted on the map.



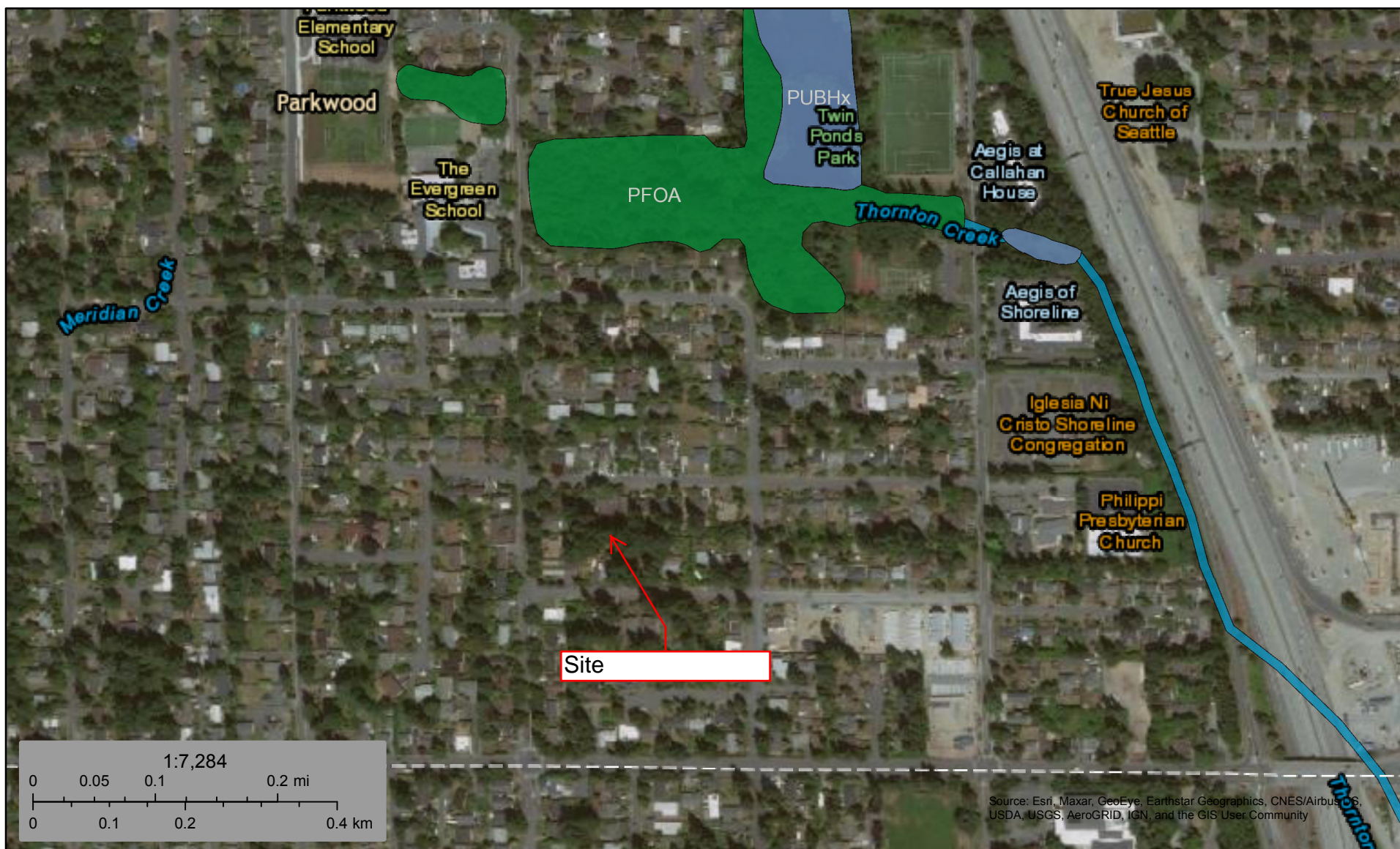
U.S. Fish and Wildlife Service

National Wetlands Inventory

5 Degrees

Attachment B

EXHIBIT 5e



March 15, 2021

Wetlands

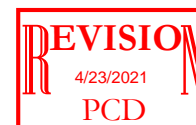
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

8a-125

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



PLN21-0139

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper



Priority Habitats and Species on the Web



Report Date: 03/15/2021

PHS Species/Habitats Overview:

Occurence Name	Federal Status	State Status	Generalized Location
Little Brown Bat	N/A	N/A	Yes

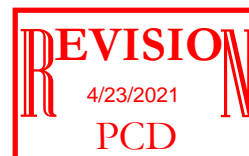
PHS Species/Habitats Details:

8a-126

REVISION
4/23/2021
PCD

Little Brown Bat	
Scientific Name	<i>Myotis lucifugus</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release (360-902-2543) for obtaining information about masked sensitive species and habitats.
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	N
Display Resolution	TOWNSHIP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00605

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

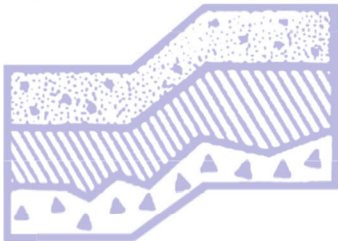




GEOTECHNICAL REPORT

**5 Degrees
North 147th Street and Meridian Avenue North
Shoreline, Washington**

Project No. T-8268



Terra Associates, Inc.

Prepared for:

**Pulte Homes of Washington, Inc.
Bellevue, Washington**

December 13, 2019



TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

December 13, 2019
Project No. T-8268

Mr. Jim Sprott
Pulte Homes of Washington, Inc.
3535 Factoria Boulevard, Suite 600
Bellevue, Washington 98006

Subject: Geotechnical Report
5 Degrees
North 147th Street and Meridian Avenue North
Shoreline, Washington

Dear Mr. Sprott:

As requested, we conducted a geotechnical engineering study for the subject project. The attached report presents our findings and recommendations for the geotechnical aspects of project design and construction.

The soils observed in our test borings consist of six inches of topsoil and organics overlying glacially derived silty sand and sand soils. The soils are primarily medium dense to very dense, with two- to four-foot thick layers of loose soils found in two of the test borings. No groundwater was observed in any of the test borings.

In our opinion, there are no geotechnical conditions that would preclude the project, as currently planned. Structures can be supported on conventional spread footings bearing on competent native soil or on structural fill placed on competent native soil subgrades. Floor slabs and driveway pavement can be similarly supported.

Detailed recommendations addressing these issues and other geotechnical design considerations are presented in the attached report. We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.

Kevin P. Roberts
Kevin P. Roberts, P.E.
Geotechnical Engineer
12-13-19
Carolyn S. Decker
Carolyn S. Decker, P.E.
Project Engineer



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Field Exploration and Laboratory Testing	Appendix A
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**Geotechnical Report
5 Degrees
North 147th Street and Meridian Avenue North
Shoreline, Washington**

1.0 PROJECT DESCRIPTION

The proposed project consists of redeveloping the site with eight townhome buildings and associated utility and access improvements. A review of preliminary architectural plans, dated October 24, 2019, prepared by Board & Vellum Architecture and Design indicates buildings will be constructed with three levels and will include at-grade garages. Drive aisle access will be from North 147th and North 148th Streets. Based on the overall relatively level site topography, we expect minor grading will be required to achieve finished building and drive aisle grades.

We anticipate the structures will be constructed with wood framing. Foundation loads should be relatively light, in the range of 3 to 5 kips per foot for bearing walls and 75 to 125 kips for isolated columns.

The recommendations in this report are based on the design features discussed above. If actual features vary or changes are made, we should review the plans in order to modify our recommendations, as required. We should review final design drawings and specifications to verify that our recommendations have been properly interpreted and incorporated into the project design.

2.0 SCOPE OF WORK

On November 27, 2019, we explored subsurface conditions at the site by drilling 5 test borings to depths of 15.5 feet to 16.5 feet below existing grades using a track-mounted drill rig. Using the information obtained from our subsurface exploration and office review, we performed analyses to develop geotechnical engineering recommendations for project design and construction. Specifically, this report addresses the following:

- Soil and groundwater conditions
- Geologic hazards per the City of Shoreline Municipal Code
- Seismic Site Class
- Site preparation and grading
- Excavations
- Foundations
- Slab-on-grade floors
- Lateral earth pressures
- Infiltration feasibility including Low Impact Development (LID) techniques
- Drainage
- Utilities
- Pavements

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It should be noted that recommendations outlined in this report regarding drainage are associated with soil strength, design earth pressures, erosion, and stability. Design and performance issues with respect to moisture as it relates to the structure environment are beyond Terra Associates' purview. A building envelope specialist or contractor should be consulted to address these issues, as needed.

3.0 SITE CONDITIONS

3.1 Surface

The site as currently shown on the plans consists of seven tax parcels totaling approximately 1.34 acres of land. The parcels are located east of Meridian Avenue North between North 147th and North 148th Streets in Shoreline, Washington. Four additional parcels located at 2122, 2132, 2142, and 2150 North 147th Street were recently added to the project site for future project expansion. The approximate location of the site is shown on Figure 1.

Single-story, single-family residences currently occupy each parcel. The site's overall topography is relatively flat. Site vegetation generally consists of grass lawn and landscape trees and shrubs. Several mature conifers are located at the central portion of the site.

3.2 Soils

The soils observed in our test borings generally consist of six inches of topsoil and organics overlying variably thick layers of glacially derived silty sand and sand with silt. Test Boring B-4 showed a 3-inch thick layer of surface asphalt overlying the silty sand soils.

Each of the test borings found silty sand with variable gravel content to depths ranging from seven feet in Test Borings B-2 and B-5 to 14.5 feet at the location of Test Boring B-4. The silty sand soils are generally in a medium dense to very condition. Loose silty sands were observed to a depth of approximately four feet at Test Boring B-1, and between depths of 4.5 feet and seven feet in Test Boring B-2.

Layers of dense to very dense sand and sand with silt were observed beneath the silty sand soils in each of the test borings. Except for Test Boring B-1, which was terminated in silty sands, the test borings were terminated within sand or sand with silt soils.

The Geologic Map of Seattle – A Progress Report by Kathy Goetz Troost et al, dated 2005, shows the site soils mapped as Till (Qvt). The loose to very dense silty sand soils observed in the test borings are generally consistent with weathered and unweathered horizons of this soil unit.

Detailed descriptions of the subsurface conditions observed in our site explorations are presented on the Test Boring Logs in Appendix A. The approximate test boring locations are shown on Figure 2.

3.3 Groundwater

No groundwater was observed during drilling of the site's test borings. In addition, we observed no mottling of soils that would indicate fluctuating or seasonal perched groundwater levels at the site.

3.4 Geologic Hazards

We evaluated site conditions for the presence of geologic hazards as designated in the Shoreline Municipal Code (SMC).

3.4.1 Landslide Hazard Areas

Chapter 20.80.220 A. of the SMC defines landslide hazard areas as "...those areas potentially subject to landslide activity based on a combination of geologic, topographic, and hydrogeologic factors as classified in Subsection B of this section with slopes 15 percent or steeper within a vertical elevation change of at least 10 feet or all areas of prior landslide activity regardless of slope..."

The relatively level topography at the site precludes the existence of landslide hazard areas as defined in SMC.

3.4.2 Seismic Hazard Areas

Chapter 20.80.220 C. of the SMC defines seismic hazard areas as "...lands that due to a combination of soil and ground water conditions, are subject to risk of ground shaking, lateral spreading, subsidence, or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium) or peat deposits and have a shallow ground water table."

Based on the predominantly medium dense to very dense nature of the site soils and absence of groundwater, it is our opinion that there is no risk for damage resulting from soil liquefaction or subsidence during a severe seismic event. Accordingly, in our opinion, unusual seismic hazard areas do not exist at the site, and design in accordance with local building codes for determining seismic forces would adequately mitigate impacts associated with ground shaking.

3.4.3 Erosion Hazard Areas

Chapter 20.80.220 D. of the SMC defines erosion hazard areas as "...lands or areas underlain by soils identified by the U.S. Department of Agriculture Natural Resources Conservation Service (formerly the Soil Conservation Service) as having "severe" or "very severe" erosion hazards. This includes, but is not limited to, the following group of soils when they occur on slopes of 15 percent or greater: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD), and Indianola (InD)."

NRCS soil maps indicate the site lies within a "No Data" area. Based on the site's level topography and glacial till soils, the soils would likely be classified as *Alderwood gravelly sandy loam, 0 to 8 percent slopes (AgB)*. The erosion hazard of this soil type is listed as "slight." Accordingly, it is our opinion that no erosion hazard areas are present at the site.

Regardless of erosion hazard designation, the site soils will be susceptible to erosion when exposed during construction. In our opinion, the erosion potential of site soils would be adequately mitigated with proper implementation and maintenance of City of Shoreline approved Best Management Practices (BMPs) for erosion prevention and sedimentation control during construction.

3.5 Seismic Site Class

Based on the site soil conditions and our knowledge of the area geology, per the 2018 International Building Code (IBC), site class “C” should be used in structural design.

4.0 DISCUSSION AND RECOMMENDATIONS

4.1 General

Based on our study, it is our opinion that the site is suitable for the proposed construction from a geotechnical standpoint. Undisturbed bearing surfaces composed of the native medium dense to very dense silty sand soils, or structural fill placed on these soils will provide suitable support for conventional spread footing foundations. Floor slabs and the driveway can be similarly supported. The sites’ loose silty sand soils identified at Test Borings B-1 and B-2 will not be suitable for direct support of foundations but can be densified in place by compaction to achieve adequate bearing support.

The silty sand soils contain a sufficient percentage of fines (silt- and clay-sized particles) such that they will be difficult to compact as structural fill when too wet or too dry. If earthwork activities will take place during the winter season, the owner should be prepared to import free-draining granular material for use as structural fill and backfill.

Detailed recommendations regarding these issues and other geotechnical design considerations are provided in the following sections of this report. These recommendations should be incorporated into the final design drawings and construction specifications.

4.2 Site Preparation and Grading

To prepare the site for construction, all vegetation, organic surface soils, and demolition debris should be removed from areas of planned construction. Soils containing organic material will not be suitable for use as structural fill but may be used for limited depths in nonstructural areas. Stripping depths of up to six inches should be expected. We recommend removing all building demolition debris prior to preparing subgrades for new construction. Demolition of existing structures should include removal of existing buried utilities and building foundations. Abandoned utility pipes that exist outside of new building areas can be left in place provided they are sealed to prevent intrusion of groundwater seepage and soil.

To reduce the potential for subgrade disturbance, particularly during wet weather, consideration should be given to placing a four-inch layer of one- to two-inch sized crushed rock or a four-inch layer of lean concrete on completed foundation and slab subgrades to serve as a working surface.

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Undisturbed surfaces of the site's medium dense to very dense silty sand soils, or structural fill placed on these soils will be suitable for support of building foundations, slabs, and pavements. As discussed above, where loose soils such as those identified at the locations of Borings B-1 and B-2 are observed in footing excavations, we recommend that these soils be densified in place by compaction to establish adequate foundation subgrade support. In general, 12 inches of scarification and recompaction should be sufficient to achieve suitable bearing.

All exposed bearing surfaces should be observed by a representative of Terra Associates, Inc. to verify soil conditions are as expected and suitable for support of building elements or new structural fill. Depending on the weather conditions, moisture conditioning of the silty sands may be required to facilitate compaction and densification in place. If excessively yielding areas are observed and cannot be stabilized in place by compaction, the affected soils should be excavated and removed to firm bearing and grade restored with new structural fill.

Our study indicates that the silty sand soils contain a sufficient percentage of fines (silt and clay size particles) that will make them difficult to compact as structural fill if they are too wet or too dry. The ability to use these soils as structural fill will depend on their moisture content and the prevailing weather conditions when site grading activities take place.

In our opinion, structural fill and backfill imported to the site should consist of a granular soil that meets the following minimum grading requirements:

U.S. Sieve Size	Percent Passing
6 inches	100
No. 4	75 maximum
No. 200	30 maximum* (dry weather) 5 maximum* (wet weather)

* Based on the 3/4-inch fraction.

Prior to use, Terra Associates, Inc. should examine and test all materials imported for use as structural fill.

Structural fill should be placed in horizontal layers not exceeding 12 inches and compacted to a density equal to or greater than 95 percent of its maximum dry density, as determined by ASTM Test Designation D-698 (Standard Proctor). The moisture content of the soil at the time of compaction should be within two percent of its optimum, as determined by this same ASTM standard.

4.3 Excavations

All excavations at the site associated with confined spaces, such as utility trenches, must be completed in accordance with local, state, or federal requirements. Based on current WISHA regulations, the site's loose to medium dense silty sand soils would be classified as Type C soils. Accordingly, for temporary excavations of more than 4 feet and less than 20 feet in depth, the side slopes in Type C soils should be laid back at a slope inclination of 1.5:1 (Horizontal:Vertical) or flatter. The dense to very dense silty sand and sand with silt soils would be classified as Type B soils. For Type B soils, side slopes can be laid back at a slope inclination of 1:1 or flatter.

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This information is provided solely for the benefit of the owner and other design consultants and should not be construed to imply that Terra Associates, Inc. assumes responsibility for job site safety. It is understood that job site safety is the sole responsibility of the project contractor.

4.4 Foundations

The buildings may be supported on conventional spread footing foundations bearing on competent native soils or on structural fills placed above these native soils. Foundation subgrades should be prepared as recommended in Section 4.2 of this report. Perimeter foundations exposed to the weather should be at a minimum depth of 18 inches below final exterior grades. Interior foundations can be constructed at any convenient depth below the floor slab.

We recommend designing foundations bearing on competent soil for a net allowable bearing capacity of 2,500 pounds per square foot (psf). For short-term loads, such as wind and seismic, a one-third increase in this allowable capacity can be used in design. With the anticipated loads and this bearing stress applied, building settlements should be less than one-inch total and one-half inch differential.

A base friction coefficient of 0.35 can be used for designing foundations to resist lateral loads. Passive earth pressure acting on the sides of the footings may also be considered. We recommend calculating this lateral resistance using an equivalent fluid weight of 300 pounds per cubic foot (pcf). We recommend not including the upper 12 inches of soil in this computation because they can be affected by weather or disturbed by future grading activity. This value assumes the foundations will be constructed neat against competent native soil or the excavations are backfilled with structural fill, as described in Section 4.2 of this report. The recommended passive and friction values include a safety factor of 1.5.

4.5 Slab-on-Grade Floors

Slab-on-grade floors may be supported on a subgrade prepared as recommended in Section 4.2 of this report. Immediately below the floor slab, we recommend placing a four-inch thick capillary break layer composed of clean, coarse sand or fine gravel that has less than three percent passing the No. 200 sieve. This material will reduce the potential for upward capillary movement of water through the underlying soil and subsequent wetting of the floor slab.

The capillary break layer will not prevent moisture intrusion through the slab caused by water vapor transmission. Where moisture by vapor transmission is undesirable, such as covered floor areas, a common practice is to place a durable plastic membrane on the capillary break layer and then cover the membrane with a layer of clean sand or fine gravel to protect it from damage during construction, and aid in uniform curing of the concrete slab. It should be noted that if the sand or gravel layer overlying the membrane is saturated prior to pouring the slab, it will be ineffective in assisting uniform curing of the slab and can actually serve as a water supply for moisture seeping through the slab that adversely affects floor coverings. Therefore, in our opinion, covering the membrane with a layer of sand or gravel should be avoided if floor slab construction occurs during the wet winter months and the layer cannot be effectively drained.

4.6 Lateral Earth Pressures

The magnitude of earth pressure development on engineered retaining walls will partly depend on the quality of the wall backfill. We recommend placing and compacting wall backfill as structural fill as described in Section 4.2 of this report. To guard against hydrostatic pressure development, wall drainage must also be installed. A typical recommended wall drainage detail is shown on Figure 3.

With wall backfill placed and compacted as recommended, and drainage properly installed, we recommend designing unrestrained walls that support level grades for an active earth pressure equivalent to a fluid weighing 35 pounds per cubic foot (pcf). For restrained walls, an additional uniform load of 100 psf should be added to the 35 pcf. For evaluation of wall performance under seismic loading, a uniform pressure equivalent to $8H$ psf, where H is the height of the below-grade portion of the wall, should be applied in addition to the static lateral earth pressure.

Friction at the base of foundations and passive earth pressure will provide resistance to these lateral loads. Values for these parameters are provided in Section 4.4 of this report

4.7 Drainage

Surface

Final exterior grades should promote free and positive drainage away from the buildings at all times. Water must not be allowed to pond or collect adjacent to foundations or within the immediate building area. We recommend providing a positive drainage gradient away from the building perimeters. If this gradient cannot be provided, surface water should be collected adjacent to the structure and disposed to appropriate storm facilities.

Subsurface

We recommend installing a continuous drain along the outside lower edge of shallow perimeter building foundations. Foundation drains should be tightlined to an approved point of controlled discharge independent of the roof drain system. Subsurface drains must be laid with a gradient sufficient to promote positive flow to the point of discharge. All drains should be provided with cleanouts at easily accessible locations. These cleanouts should be serviced at least once every year.

4.8 Infiltration Feasibility

Across the site, we observed primarily silty sand with gravel, till, and till-like soils. Due to the high soil fines content and degree of consolidation, these soils exhibit relatively low permeability. This would preclude the use of retention facilities for discharge of development stormwater by infiltration at shallow depths at the site. Based on the existing topography of the site, it is our opinion that even low impact development (LID) techniques would not be suitable for the site as the stormwater would likely mound up in the facilities and cause minor local flooding to occur during rain events. Based on our observations, it is our opinion, that the site stormwater should be collected and controlled using conventional stormwater techniques.

Attachment B

December 13, 2019

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4.9 Utilities

Utility pipes should be bedded and backfilled in accordance with American Public Works Association (APWA) or the City of Shoreline specifications. As a minimum, trench backfill should be placed and compacted as structural fill, as described in Section 4.2 of this report. As noted, depending on the soil moisture when excavated most inorganic native soils on the site should be suitable for use as backfill material during dry weather conditions. The contractor should be prepared to aerate soils to reduce moisture and facilitate proper compaction. However, if utility construction takes place during the wet winter months, it will likely be necessary to import suitable wet weather fill for utility trench backfilling.

4.10 Pavements

Drive aisle pavement subgrades should be prepared as described in the Section 4.2 of this report. Regardless of the degree of relative compaction achieved, the subgrade must be firm and relatively unyielding before paving. The subgrade should be proofrolled with heavy rubber-tire construction equipment such as a loaded 10-yard dump truck to verify this condition.

The pavement design section is dependent upon the supporting capability of the subgrade soils and the traffic conditions to which it will be subjected. For residential access, with traffic consisting mainly of light passenger vehicles with only occasional heavy traffic, and with a stable subgrade prepared as recommended, we recommend the following pavement section options:

- Two inches of hot mix asphalt (HMA) over four inches of crushed rock base (CRB)
- Full depth HMA – 3 ½ inches

The paving materials used should conform to the Washington State Department of Transportation (WSDOT) specifications for ½-inch class HMA and CRB.

Long-term pavement performance will depend on surface drainage. A poorly-drained pavement section will be subject to premature failure as a result of surface water infiltrating into the subgrade soils and reducing their supporting capability. For optimum pavement performance, we recommend surface drainage gradients of at least two percent. Some degree of longitudinal and transverse cracking of the pavement surface should be expected over time. Regular maintenance should be planned to seal cracks when they occur.

5.0 ADDITIONAL SERVICES

Terra Associates, Inc. should review the final designs and specifications to verify that earthwork and foundation recommendations have been properly interpreted and implemented in project design. We should also provide geotechnical services during construction to observe compliance with our design concepts, specifications, and recommendations. This will allow for design changes if subsurface conditions differ from those anticipated prior to the start of construction.

Attachment B

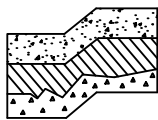
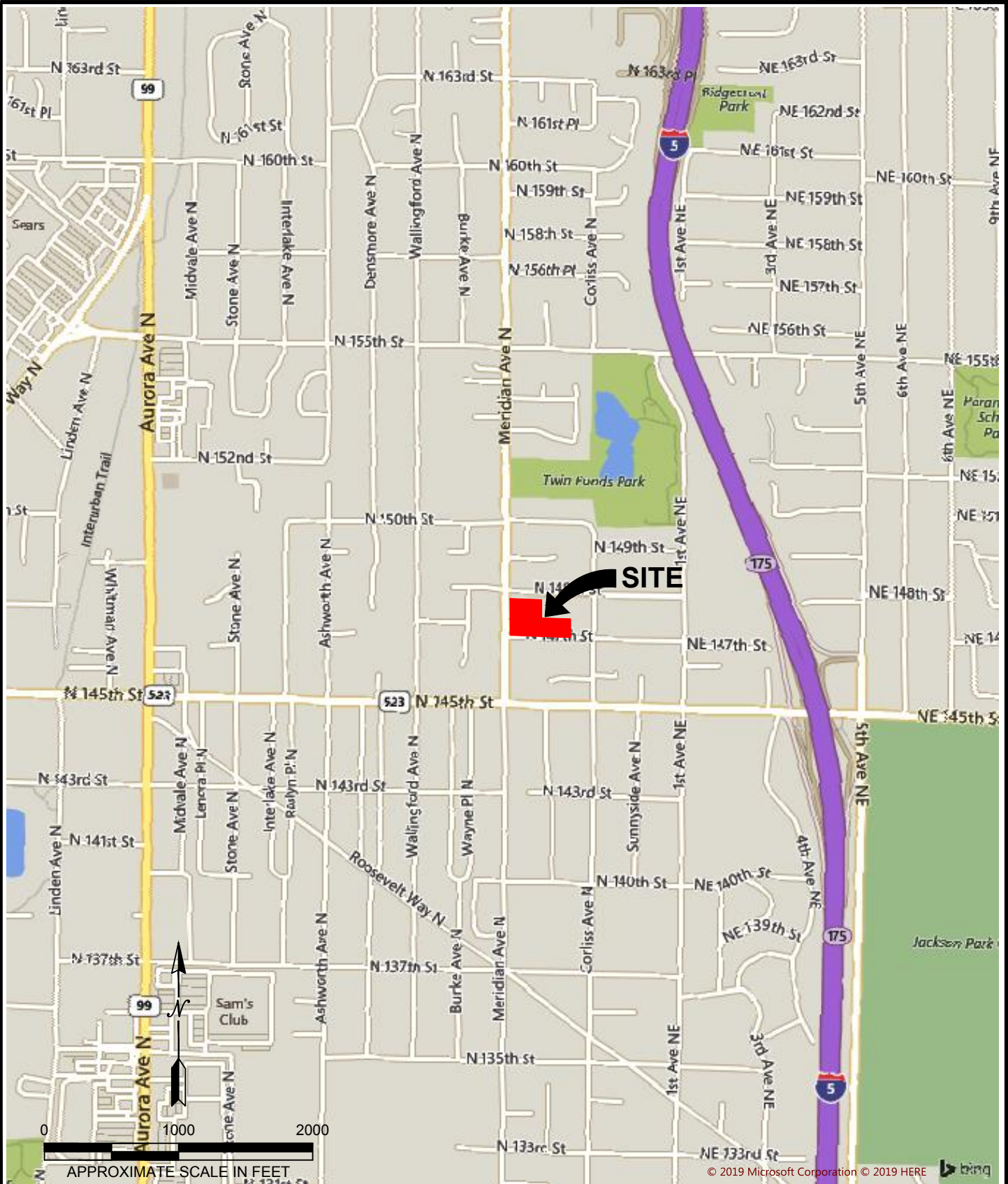
December 13, 2019

Project No. T-8268

6.0 LIMITATIONS

We prepared this report in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made. This report is the copyrighted property of Terra Associates, Inc. and is intended for specific application to the 5 Degrees project in Shoreline, Washington. This report is for the exclusive use of Pulte Homes of Washington, Inc. and their authorized representatives. No other warranty, expressed or implied, is made.

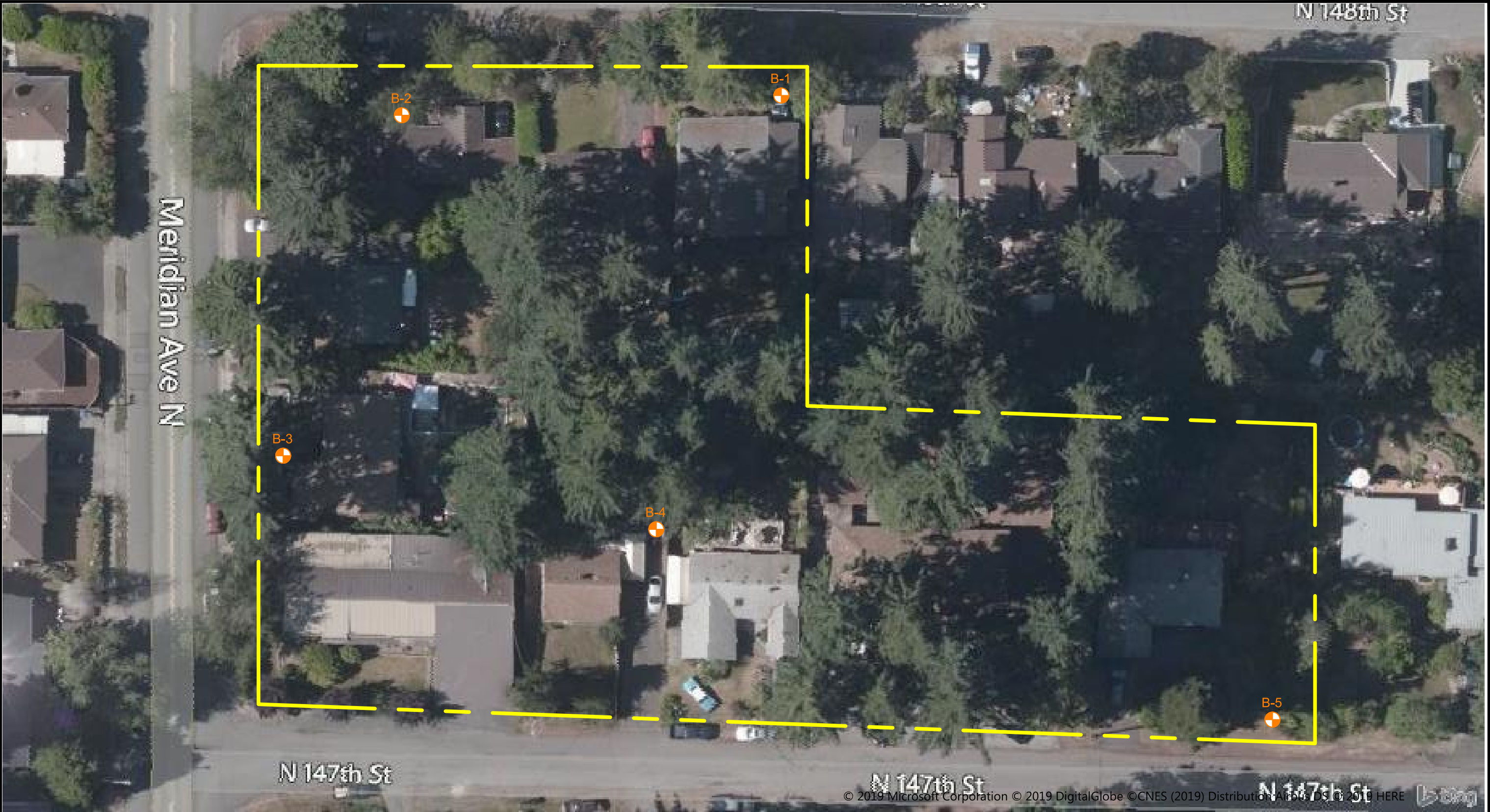
The analyses and recommendations presented in this report are based on data obtained from the test pits excavated at the site. Variations in soil conditions can occur, the nature and extent of which may not become evident until construction. If variations appear evident, Terra Associates, Inc. should be requested to reevaluate the recommendations in this report, prior to proceeding with construction.



Terra Associates, Inc.
Consultants in Geotechnical Engineering
Geology and
Environmental Earth Sciences

VICINITY MAP
5 DEGREES
SHORELINE, WASHINGTON

Proj.No. T-8268	Date: DEC 2019	Figure 1
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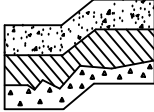
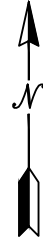
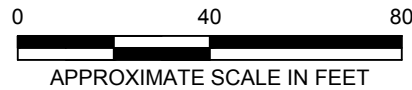
NOTE:

THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

REFERENCE: SITE PLAN PROVIDED BY <https://www.bing.com/maps>

LEGEND:

 APPROXIMATE BORING LOCATION



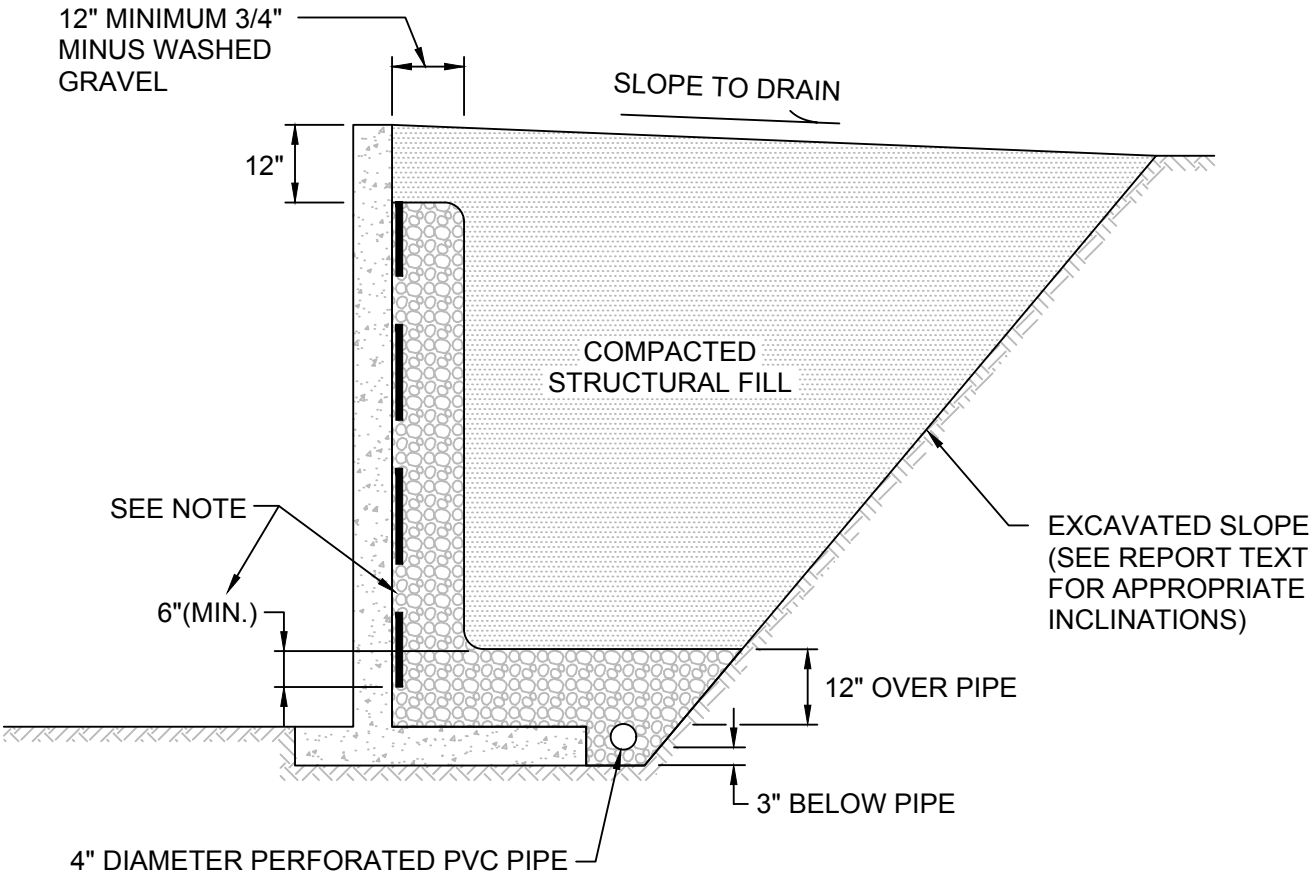
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Geology and
Environmental Earth Sciences

EXPLORATION LOCATION PLAN
5 DEGREES
SHORELINE, WASHINGTON

Proj.No. T-8268

Date: DEC 2019

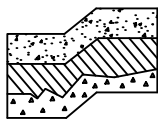
Figure 2



NOT TO SCALE

NOTE:

MIRADRAIN G100N PREFABRICATED DRAINAGE PANELS OR SIMILAR PRODUCT CAN BE SUBSTITUTED FOR THE 12-INCH WIDE GRAVEL DRAIN BEHIND WALL. DRAINAGE PANELS SHOULD EXTEND A MINIMUM OF SIX INCHES INTO 12-INCH THICK DRAINAGE GRAVEL LAYER OVER PERFORATED DRAIN PIPE.



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Geology and
Environmental Earth Sciences

TYPICAL WALL DRAINAGE DETAIL
5 DEGREES
SHORELINE, WASHINGTON

Proj.No. T-8268	Date: DEC 2019	Figure 3
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**APPENDIX A
FIELD EXPLORATION AND LABORATORY TESTING**

**5 Degrees
Shoreline, Washington**

On November 27, 2019, we explored subsurface conditions at the site by drilling 5 test borings to depths of 15.5 and 16.5 feet below existing grades using a track-mounted drill rig. The test boring locations were approximately determined in the field by measuring from existing site features. The approximate test boring locations are shown on the attached Exploration Location Plan, Figure 2. Test Boring Logs are attached as Figures A-2 through A-6.




A geologist from our office conducted the field exploration. Our representative classified the soil conditions encountered, maintained a log of each hand hole, obtained representative soil samples, and recorded water levels observed during excavation. During drilling, soil samples were obtained in general accordance with ASTM Test Designation D-1586. Using this procedure, a 2-inch (outside diameter) split barrel sampler is driven into the ground 18 inches using a 140-pound hammer free falling a height of 30 inches. The number of blows required to drive the sampler 12 inches after an initial 6-inch set is referred to as the Standard Penetration Resistance value or N value. This is an index related to the consistency of cohesive soils and relative density of cohesionless materials. N values obtained for each sampling interval are recorded on the Test Boring Logs, Figures A-2 through A-6. All soil samples were visually classified in accordance with the Unified Soil Classification System (USCS) described on Figure A-1.

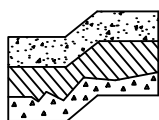
Representative soil samples collected from the test pits were placed in closed containers and taken to our laboratory for further examination and testing. Laboratory testing consisted of determining the soil moisture content of all samples and grain size distribution analyses of eight soil samples. The soil moistures are reported on the Test Boring Logs. The grain size distribution test results are shown on Figures A-7 through A-9.

Attachment B

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTION
COARSE GRAINED SOILS More than 50% material larger than No. 200 sieve size	GRAVELS More than 50% of coarse fraction is larger than No. 4 sieve	Clean Gravels (less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines.
		Gravels with fines	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS More than 50% of coarse fraction is smaller than No. 4 sieve	Clean Sands (less than 5% fines)	SW	Well-graded sands, sands with gravel, little or no fines.
			SP	Poorly-graded sands, sands with gravel, little or no fines.
		Sands with fines	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS More than 50% material smaller than No. 200 sieve size	SILTS AND CLAYS Liquid Limit is less than 50%		ML	Inorganic silts, rock flour, clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity. (Lean clay)
			OL	Organic silts and organic clays of low plasticity.
	SILTS AND CLAYS Liquid Limit is greater than 50%		MH	Inorganic silts, elastic.
			CH	Inorganic clays of high plasticity. (Fat clay)
			OH	Organic clays of high plasticity.
	HIGHLY ORGANIC SOILS		PT	Peat.

DEFINITION OF TERMS AND SYMBOLS

COHESIONLESS	<u>Density</u>	<u>Standard Penetration Resistance in Blows/Foot</u>	 2" OUTSIDE DIAMETER SPILT SPOON SAMPLER  2.4" INSIDE DIAMETER RING SAMPLER OR SHELBY TUBE SAMPLER  WATER LEVEL (Date) Tr TORVANE READINGS, tsf
	Very Loose Loose Medium Dense Dense Very Dense	0-4 4-10 10-30 30-50 >50	
COHESIVE	<u>Consistency</u>	<u>Standard Penetration Resistance in Blows/Foot</u>	Pp PENETROMETER READING, tsf DD DRY DENSITY, pounds per cubic foot LL LIQUID LIMIT, percent PI PLASTIC INDEX N STANDARD PENETRATION, blows per foot
	Very Soft Soft Medium Stiff Stiff Very Stiff Hard	0-2 2-4 4-8 8-16 16-32 >32	



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UNIFIED SOIL CLASSIFICATION SYSTEM
5 DEGREES
SHORELINE, WASHINGTON

Proj.No. T-8268

Date: DEC 2019

Figure A-1

Attachment B

Figure No. A-2

LOG OF BORING NO. B-1

Project: 5 Degrees Project No: T-8268 Date Drilled: November 27, 2019

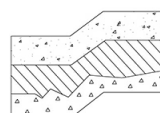
Client: Pulte Driller: Borettec Logged By: EHE

Location: Shoreline, Washington Depth to Groundwater: N/A Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(6 inches TOPSOIL and ORGANICS)					
		FILL(?): Gray to brown silty SAND with gravel, fine sand, fine to medium gravel, dry to moist, minor organics. (SM)	Loose			6	10.1
5		Gray to tan silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SM)				50/6"	7.4
						50/5"	7.3
10			Very Dense			51	4.4
		Gray to tan SAND with silt and gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SP-SM)				57	3.7
15		Gray to tan silty SAND with trace gravel, fine to medium sand, fine to medium gravel, dry to moist. (SM)	Dense			32	5.6
		Boring terminated at 16.5 feet. No groundwater encountered.					
20							

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

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Attachment B

Figure No. A-3

LOG OF BORING NO. B-2

Project: 5 Degrees Project No: T-8268 Date Drilled: November 27, 2019

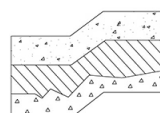
Client: Pulte Driller: Borettec Logged By: EHE

Location: Shoreline, Washington Depth to Groundwater: N/A Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(6 inches TOPSOIL and ORGANICS)					
		FILL(?): Gray to brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, moist, minor organics. (SM)	Medium Dense				
5			Loose				
		Gray to tan SAND with silt and gravel, fine to coarse sand, fine to coarse gravel, moist. (SP-SM)	Dense				
10							
15		Gray to tan SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SP)	Very Dense				
20		Boring terminated at 16.5 feet. No groundwater encountered.					

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

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Attachment B

Figure No. A-4

LOG OF BORING NO. B-3

Project: 5 Degrees Project No: T-8268 Date Drilled: November 27, 2019

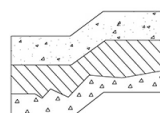
Client: Pulte Driller: Borettec Logged By: EHE

Location: Shoreline, Washington Depth to Groundwater: N/A Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(6 inches TOPSOIL and ORGANICS)					
		Tan to dark brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SM)	Medium Dense				
5		Brown to dark brown silty SAND, fine to medium sand, moist, some gravel. (SM)	Very Dense				
		Gray to tan silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SM)					
10		Gray to tan SAND with silt and gravel, fine sand, gravel, dry to moist. (SP-SM)	Dense				
15			Very Dense				
		Boring terminated at 15.5 feet. No groundwater seepage encountered.					
20							

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

8a-147



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Attachment B

Figure No. A-5

LOG OF BORING NO. B-4

Project: 5 Degrees Project No: T-8268 Date Drilled: November 27, 2019

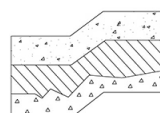
Client: Pulte Driller: Borettec Logged By: EHE

Location: Shoreline, Washington Depth to Groundwater: N/A Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(3 inches ASPHALT)					
		Gray to tan silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SM)	Dense				
5			Very Dense				
10			Dense				
15		Brown-gray SAND with silt and gravel, fine to medium sand, moist. (SP-SM)	Very Dense				
		Boring terminated at 16.5 feet. No groundwater encountered.					
20							

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

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Attachment B

Figure No. A-6

LOG OF BORING NO. B-5

Project: 5 Degrees Project No: T-8268 Date Drilled: November 27, 2019

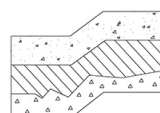
Client: Pulte Driller: Borettec Logged By: EHE

Location: Shoreline, Washington Depth to Groundwater: N/A Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(6 inches TOPSOIL and ORGANICS)					
		Brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist, minor organics. (SM)	Medium Dense		•		29 26.4
5		Gray to tan silty SAND with some gravel, fine to coarse sand, fine to medium gravel, moist. (SM)	Dense		•		37 8.3
		Gray to tan SAND with silt and gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SP-SM)			•		31 4.6
10		Gray to tan silty SAND, fine sand, dry to moist, trace gravel. (SM)	Medium Dense		•		29 11.7
		Gray to tan SAND with gravel, fine to medium sand, fine gravel, dry to moist. (SP)	Very Dense			•	54 3.8
15						•	89 7.4
		Boring terminated at 16.5 feet. No groundwater encountered.					
20							

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

8a-149



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PERCENT FINER

GRAIN SIZE - mm.

Grain Size (mm)	Percent Finer (%) - Square Markers	Percent Finer (%) - Triangle Markers	Percent Finer (%) - Circle Markers
6 in.	100	100	100
3 in.	100	100	100
2 in.	100	100	100
1 1/2 in.	100	100	100
1 in.	100	100	100
3/4 in.	98	85	79
3/8 in.	96	80	75
#4	94	73	66
#10	90	62	60
#20	88	49	55
#30	75	40	45
#40	53	30	40
#60	25	18	20
#100	18	13	15
#140	17	12	14
#200	16	12	13

		GRAIN SIZE - mm.								
% +3"		% Gravel		% Sand			% Fines			
		Coarse	Fine	Coarse	Medium	Fine	Silt		Clay	
○	0.0	21.1	12.8	6.4	20.4	28.0	11.3			
□	0.0	0.0	4.5	2.6	40.2	36.2	16.5			
△	0.0	0.0	26.5	11.3	32.9	16.8	12.5			
⊗	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			24.7012	2.1718	0.6075	0.3407	0.2141			
□			0.8144	0.4807	0.4064	0.2835				
△			9.4269	1.6612	0.8914	0.4361	0.1834			

Material Description	USCS	AASHTO
○ SAND with silt	SP-SM	
□ Silty SAND	SM	
△ Silty SAND	SM	

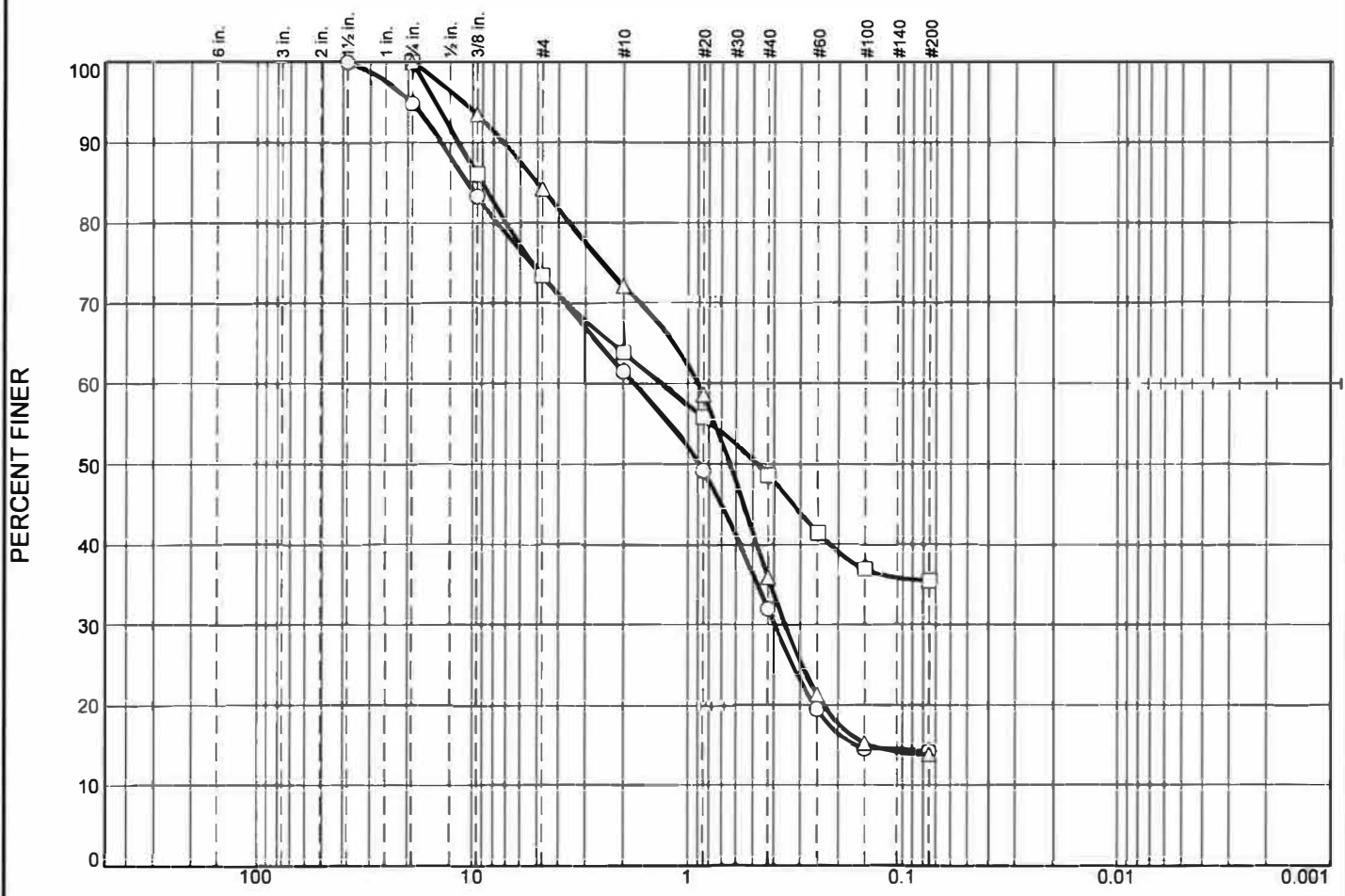
Remarks:

Depth: -5 feet

Kirkland, WA

Figure A-7

Particle Size Distribution Report



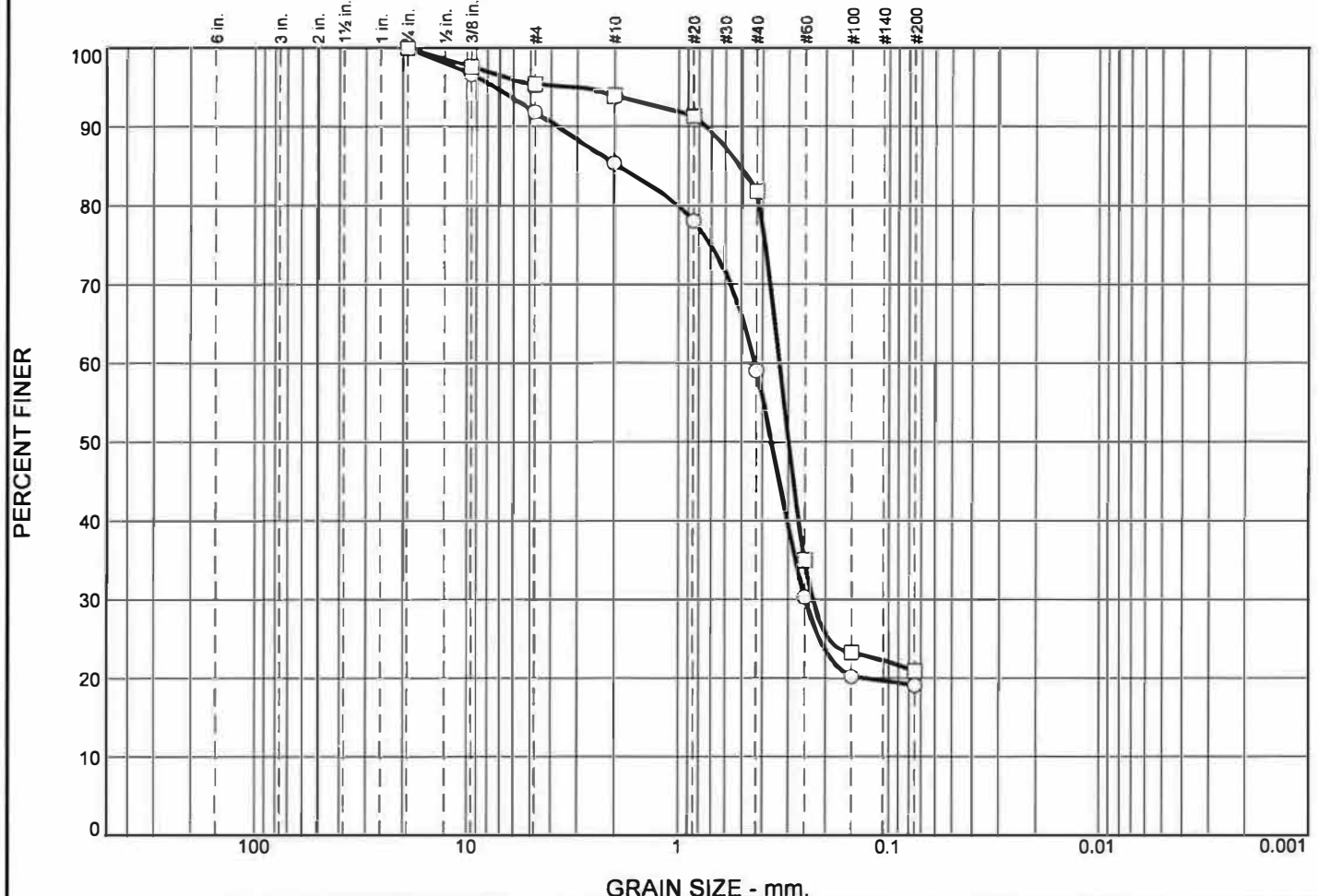
GRAIN SIZE - mm.										
% +3"		% Gravel		% Sand			% Fines			
		Coarse	Fine	Coarse	Medium	Fine	Silt		Clay	
○	0.0	5.2	21.4	11.9	29.5	17.7	14.3			
□	0.0	0.0	26.6	9.5	15.2	13.2	35.5			
△	0.0	0.0	15.8	12.1	36.2	22.0	13.9			
⊗	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			10.5249	1.7735	0.8857	0.3945	0.1635			
□			9.0586	1.3258	0.4730					
△			5.0206	0.8997	0.6388	0.3532	0.1418			

Material Description							USCS	AASHTO
○ Silty SAND							SM	
□ Silty SAND with gravel							SM	
△ Silty SAND							SM	

Project No. T-8268 Project: 5 Degrees ○ Location: B-3 Depth: -7.5 □ Location: B-4 Depth: -5 feet △ Location: B-4 Depth: -10 feet	Client: Pulte Homes of Washington Terra Associates, Inc. Kirkland, WA	Remarks: Figure A-8
--	--	--

Tested By: FQ

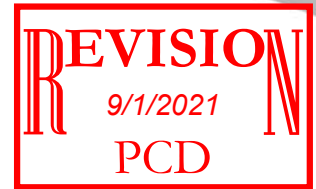
Particle Size Distribution Report



GRAIN SIZE - mm.									
% +3"		% Gravel		% Sand			% Fines		
		Coarse	Fine	Coarse	Medium	Fine	Silt		Clay
<input type="radio"/>	0.0	0.0	8.1	6.5	26.3	40.0	19.1		
<input type="checkbox"/>	0.0	0.0	4.6	1.5	12.1	60.9	20.9		
<input checked="" type="checkbox"/>	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c
<input type="radio"/>			1.8868	0.4330	0.3599	0.2482			
<input type="checkbox"/>			0.5119	0.3315	0.2994	0.2281			
Material Description								USCS	AASHTO
<input type="radio"/> Silty SAND								SM	
<input type="checkbox"/> Silty SAND								SM	
Project No. T-8268		Client: Pulte Homes of Washington					Remarks:		
Project: 5 Degrees									
<input type="radio"/> Location: B-5	Depth: -5 feet								
<input type="checkbox"/> Location: B-5	Depth: -10 feet								
Terra Associates, Inc.									
Kirkland, WA									

Figure A-9

Tested By: FQ

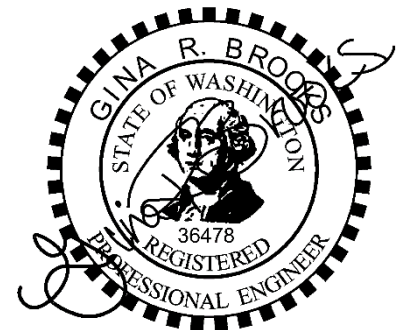


Final Storm Drainage Report

FOR

5 DEGREES

CITY OF SHORELINE, WASHINGTON



8-27-21

Prepared for: The Pulte Group
3535 Factoria Blvd. SE #600
Bellevue, WA 98006

Approved by: Gina R. Brooks, P.E.
Prepared by: Matthew J. Stefansson, P.E.
Date: July 31, 2020
Revision Date: April 9, 2021
August 27, 2021
Core No: 19133



12100 NE 195th Street, Suite 300
Bothell, Washington 98011
Ph 425.885.7877
www.coredesigninc.com

DEV20-1621

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- Appendix A. Infiltration Testing
- Appendix B. Geotechnical Report
- Appendix C. Documentation

Appendix D. Maintenance Plan

Appendix E. Covenants, Dedications, Easements

Appendix F. Property Owners' Association Articles of Incorporation

1. Project Overview

The 5 Degrees project is located at the northeast corner of N 147th Street and Meridian Avenue N in Shoreline, Washington. See Vicinity Map below.

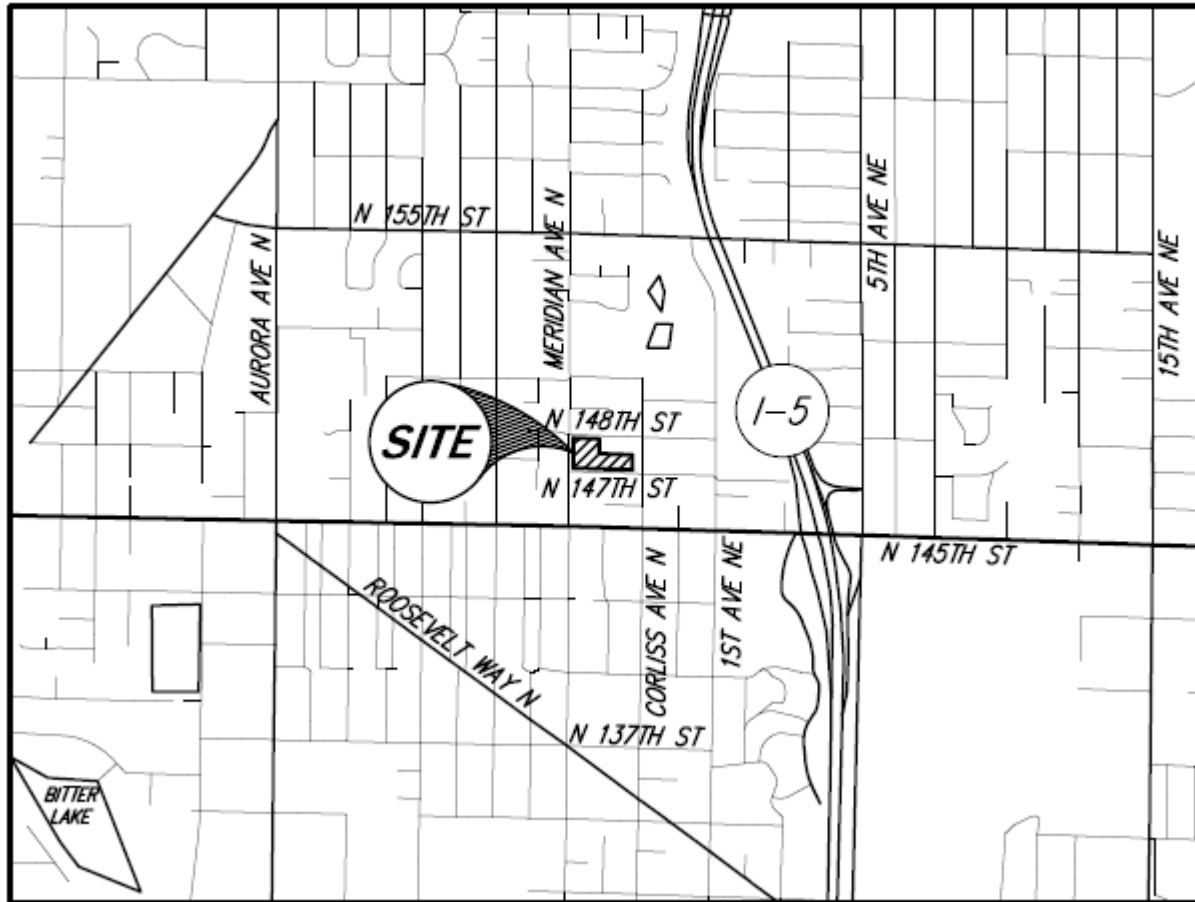


Figure 1-1: Vicinity Map

The project consists of 11 existing parcels, all with existing single-family homes on them. Existing ground cover includes a mix of landscaping, trees, grass, shrubs, gravel, and pavement. All project parcels are zoned MUR-35. See Table 1-1 below which shows addresses, parcel numbers, and areas for all 11 existing project parcels.

Table 1-1: Existing Project Parcel Summary		
Parcel Number	Address	Area (Acres)
777130-0055	2015 N 148 th St	0.19
777130-0060	14718 Meridian Ave. N	0.19
777130-0065	2117 N 148 th St	0.19
777130-0070	2123 N 148 th St	0.19
777130-0135	2122 N 147 th St	0.19
777130-0140	2116 N 147 th St	0.19
777130-0145	14710 Meridian Ave. N	0.19
777130-0150	14704 Meridian Ave. N	0.19
777130-0125	2132 N 147 th St	0.32
777130-0115	2142 N 147 th St	0.34
777130-0110	2150 N 147 th St	0.28
	Total	2.44

The existing project site has two natural discharge locations and downstream flow paths, which do not meet within ¼ mile downstream of the project site. This means the project has two threshold discharge areas (TDAs) which will drive the stormwater design for the project. The two TDAs will be known as the Basin A TDA and Basin B TDA for the remainder of this report. See Existing Conditions Exhibit in Section 5.1.2 of this Report for a delineation of the basins. Basin A is located within the western portion of the project site. This basin generally drains via unconcentrated surface flow to the north where it is eventually intercepted by the drainage system located within N 148th Street. The tightlined conveyance system within N 148th Street conveys the drainage west to Meridian Avenue N and then north. Basin B is located within the eastern portion of the project site. This basin generally drains via unconcentrated surface flow to the north and northeast where it either flows through neighboring single-family home properties to the north and east or to N 148th Street. Drainage within this basin eventually converges at the intersection of N 148th Street and Corliss Avenue N. The project site does not receive any upstream drainage.

This project proposes to construct 14 buildings which will provide 70 townhouse units. The buildings range in size from 2,000 square feet housing three townhome units to 5,280 square feet housing eight townhome units. The project site will be completely developed with the exception of tree retention areas. The project will ultimately subdivide the property to create 70 individual townhouse unit lots. Access roads and utilities will also be constructed to serve the development. Frontage improvements will also be provided along Meridian Avenue N, N 148th Street, and N 147th Street per City of Shoreline requirements. Permanent stormwater control will be provided via a stormwater vault for flow control and a BioPod Biofilter for water quality treatment. Upon flow control and treatment, drainage will discharge to the natural discharge location for Basin B converging at the intersection of N 148th Street

and Corliss Avenue N. City of Shoreline staff has permitted the project to discharge all its drainage to the northeast. With this option, a single stormwater vault followed by a BioPod Biofilter are proposed for this project.

Per direction from City of Shoreline staff, the project is not required to convey drainage from the frontage improvements into the proposed flow control and water quality facilities and the frontage improvement area does not need to be modeled as bypass. However, the flow control and water quality facilities have been sized assuming that the frontage improvement area is tributary to the on-site facilities. As well, City of Shoreline staff has permitted the project to discharge all its drainage to the northeast.

This project is required to comply with the City of Shoreline 2020 Engineering Development Manual (2020 EDM) and the Washington State Department of Ecology 2012 Stormwater Management Manual for Western Washington as Amended in 2014 (2014 DOE Manual).

Per Chapter 19, Section E of the 2020 EDM the project is required to choose a water quality treatment option from the Enhanced Treatment Menu of the 2014 DOE Manual. The Standard Flow Control requirement per the 2014 DOE Manual will be used to design the proposed flow control facility.

2. Minimum Requirements

This project is required to comply with all 9 Minimum Requirements per the 2014 DOE Manual and the 2020 EDM. Flow charts for determining the minimum requirements and the flow chart for determining the requirements of Minimum Requirement #5 have been annotated and are provided at the end of this section. No additional requirements are known at this time. A brief summary of each minimum requirement and how this project will comply is provided below. These summaries also provide a reference to the appropriate section of this report that addresses the minimum requirement in more detail.

Minimum Requirement #1: Preparation of Stormwater Site Plans

This report along with the Civil Plans for this project satisfy Minimum Requirement #1.

Minimum Requirement #2: Construction Stormwater Pollution Prevention (SWPPP)

A Construction Stormwater Pollution Prevention Plan (SWPPP) Report has been prepared using Pulte's template and has been submitted under separate cover. This report provides both narrative and drawings. Each of the 13 Elements per the 2014 DOE Manual are addressed with information on how these requirements will be met. Additional information on rainy season requirements and seasonal suspension plans can be found in Section 4 of this report.

Minimum Requirement #3: Source Control of Pollution

The subject multi-family development does not fall under the category of urban stormwater pollutant sources as defined at the beginning of Chapter 2 of Volume IV within the 2014 DOE Manual therefore, no source control is required for the developed site. Minimum Requirement #2 addresses BMPs for construction sites.

Minimum Requirement #4: Preservation of Natural Drainage Systems and Outfalls

The existing project site has two natural discharge locations. The downstream flow paths from these two natural discharge locations do not meet up within ¼ mile, meaning the project has two TDAs.

City of Shoreline staff has permitted the project to discharge all its drainage to the natural discharge location for Basin B converging at the intersection of N 148th Street and Corliss Ave. N. With this option, a single stormwater vault followed by a BioPod Biofilter are proposed for this project. Drainage is then discharged through a new tight-lined storm drainage system along N 148th Street conveying drainage to the existing tight-lined system located at the intersection of N 148th Street and Corliss Ave. N.

Minimum Requirement #5: On-site Stormwater Management

This project will employ on-site stormwater management BMPs to the extent feasible. The project is required to use List #2 from the 2014 DOE Manual to evaluate the use of BMPs for all surfaces. The first BMP, if any, that is considered feasible will be used. See Section 5.1 of this report for feasibility discussion of all BMPs presented in List #2 for this project.

Minimum Requirement #6: Runoff Treatment

This project triggers runoff treatment and is required to construct runoff treatment facilities. The project is required to provide Enhanced Runoff Treatment. Runoff treatment facility selection has been completed per Volume V of the 2014 DOE Manual. A BioPod Biofilter will be used to provide the required enhanced runoff treatment. The filter will be located downstream of the proposed flow control facility. See Section 5.2 of this report which details the runoff treatment facility selection and design.

Per the Water Quality Atlas from the Washington State Department of Ecology, no downstream water quality issues exist within one mile of the project site.

Minimum Requirement #7: Flow Control

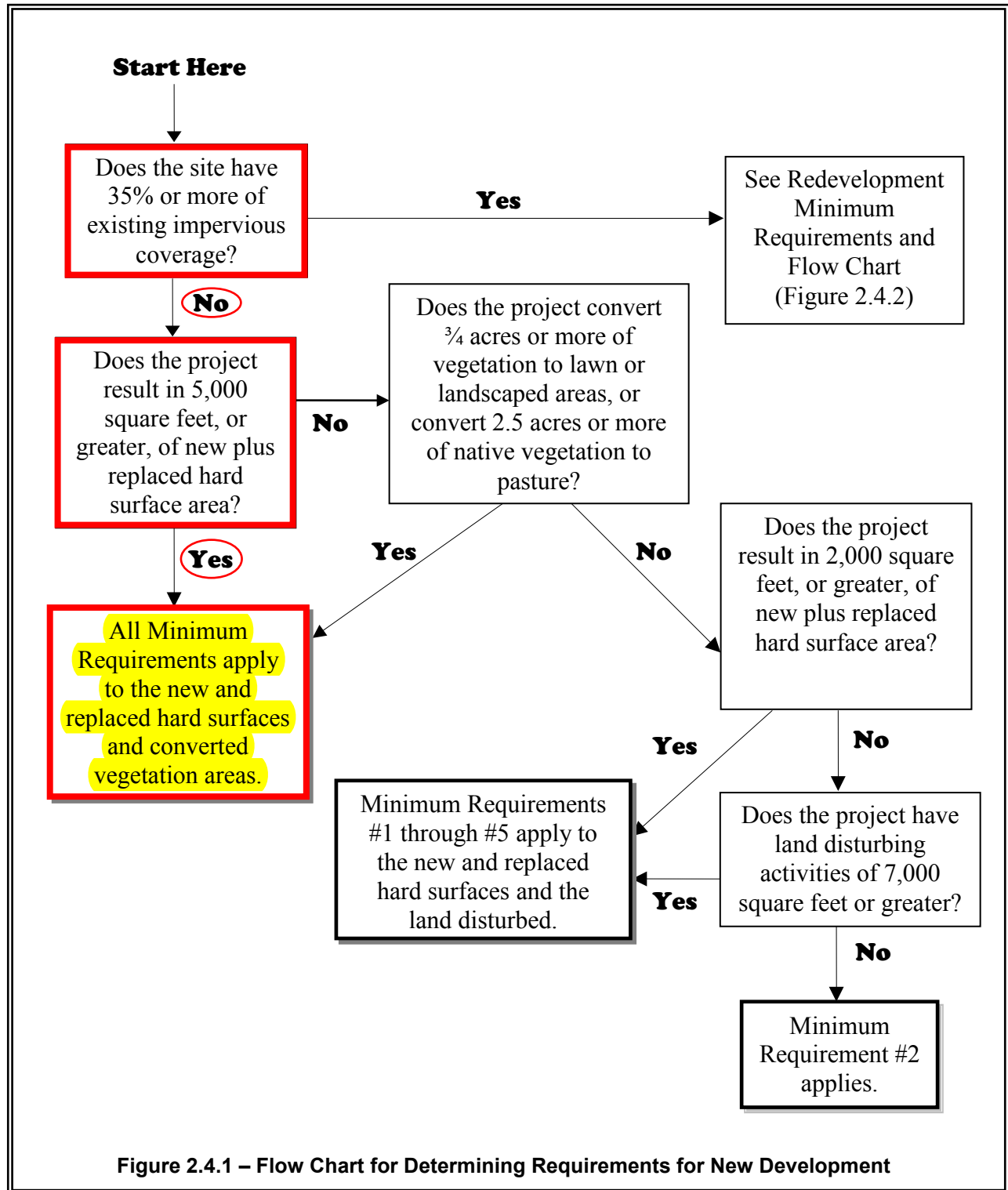
This project triggers flow control. One vault will be constructed to provide flow control. Stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow. The pre-developed condition to be matched shall be a forested land cover. See Section 5 for more information on flow control facility sizing and design.

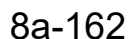
Minimum Requirement #8: Wetlands Protection

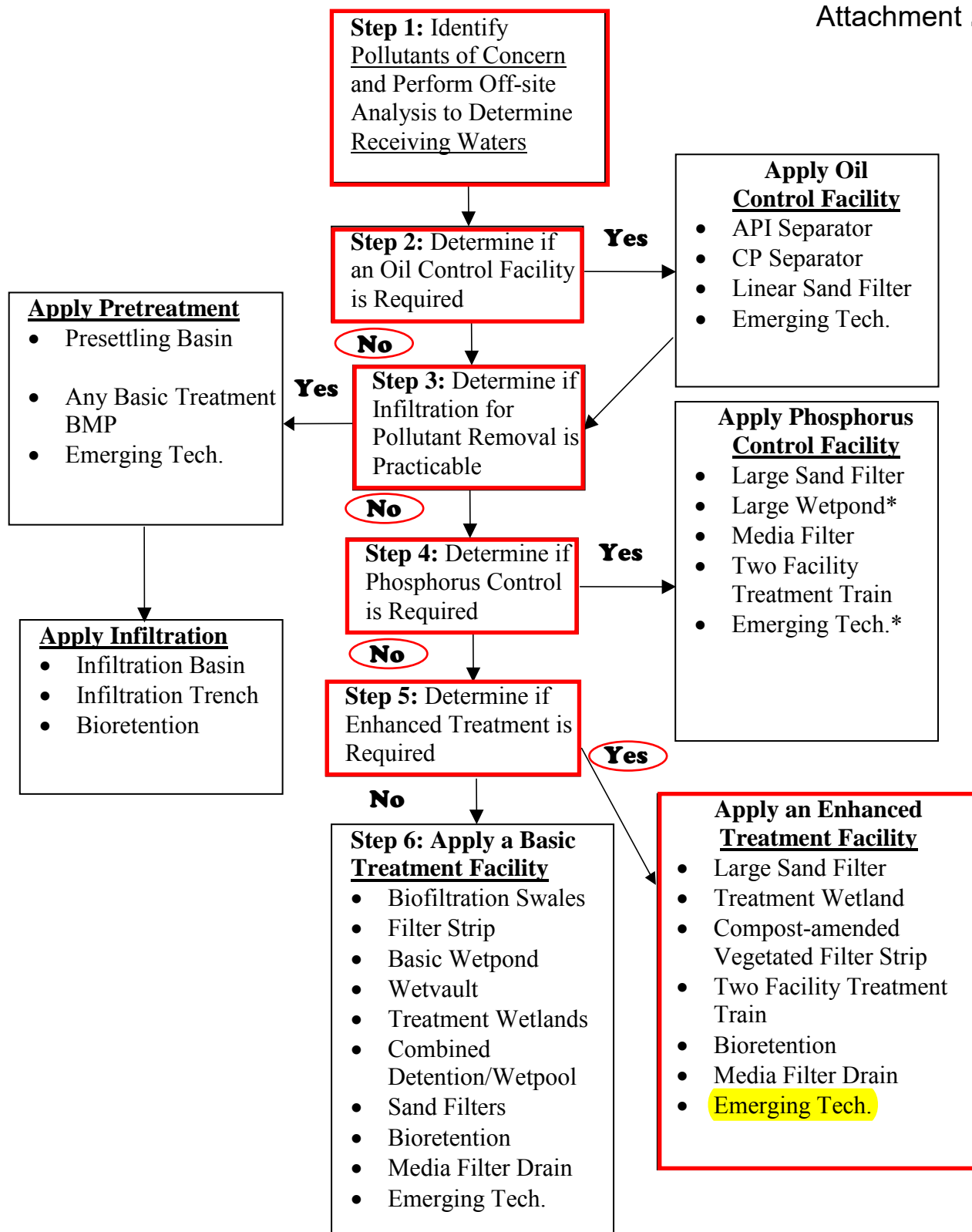
No wetlands have been identified on or next to the project site. The project does not propose to discharge stormwater to a wetland. Therefore, minimum requirement #8 does not apply to this project.

Minimum Requirement #9: Operation and Maintenance

An operation and maintenance manual that is consistent with the provisions in Volume V of the 2014 DOE Manual will be provided for proposed stormwater facilities and BMPs. The operations and maintenance manual has been prepared as a standalone document and is located in Appendix D of this report.







*When **Phosphorous Control** and **Enhanced** treatment are required, the Large Wetpond and certain types of emerging technologies will not meet both types of treatment requirements. A different or an additional treatment facility will be required to meet Enhanced treatment.

Figure 2.1.1 – Treatment Facility Selection Flow Chart

3. Site and Basin Assessment

The project site consists of two TDAs which are referred to as Basin A TDA and Basin B TDA. A natural topographic break exists through the approximate middle of the property creating the two TDAs. Slopes on the existing site range from 5% to 15%.

The existing project site consists of 11 parcels, each of which has an existing single-family home on it. Existing ground cover includes a mix of landscaping, trees, grass, shrubs, gravel and pavement. The project site is located in an urban neighborhood area meaning no real naturally vegetated area exists with the exception of some existing trees. No critical areas exist on the project site or adjacent to the project site. No conveyance system exists on the project site but conveyance systems adjacent to the property exist within Meridian Avenue N, N 148th Street and N 147th Street. No upstream area exists for the project site meaning there is no offsite drainage onto project site. Drainage complaints from King County iMap have been investigated and are described in Section 3.1 Task 4 below.

Basin A is located within the western portion of the project site. This basin generally drains via unconcentrated surface flow to the north where it is eventually intercepted by the drainage system located within N 148th Street. The tightlined conveyance system within N 148th Street conveys the drainage west to Meridian Avenue N and then north. Basin B is located within the eastern portion of the project site. This basin generally drains via unconcentrated surface flow to the north and northeast where it either flows through neighboring single-family home properties to the north and east, or to N 148th Street. Drainage within this basin eventually converges at the intersection of N 148th Street and Corliss Avenue N.

The existing project site is developed with 11 single family homes and associated gravel/pavement driveways and patios. Existing sidewalk is present along the frontage of Meridian Ave. N. The total existing impervious area on the project site is 0.79 acre. No undisturbed land exists for this project site with the exception of some trees. As stated previously, this project site is located in an urban neighborhood and no natural areas exist.

This project proposes to construct 14 buildings which will provide 70 townhouse units. The buildings range in size from 2,000 square feet housing three townhome units, to 5,280 square feet housing eight townhome units. The project site will be completely developed with the exception of tree retention areas. The project will ultimately subdivide the property to create 70 individual townhouse unit lots. Twenty-foot minimum width access roads and utilities will also be constructed to serve the development. Sidewalks throughout the development will provide pedestrian access. Frontage improvements will also be provided along Meridian Avenue N, N 148th Street, and N 147th Street per City of Shoreline requirements. Tree retention will be provided per City requirements. Permitted maximum impervious for the project site is 85%. Proposed impervious within the site after ROW dedication is 1.94 acres. Added/replaced impervious within dedicated ROWs is 0.29 acre.

3.1 Phased Offsite Analysis

A Phased Off-site analysis for both the Basin A TDA and Basin B TDA has been completed per Appendix C of the 2020 EDM and Volume I Section 2.6.2 of the 2014 DOE Manual.

Task 1 – Define and Map Study Area

The study area for resource review extends one mile downstream of the project site. The study area for the Field Inspection extends ¼-mile downstream of the project site. This project has two TDAs which are referred to as the Basin A TDA and Basin B TDA. Because the project has two TDAs, an offsite analysis has been completed for each of the two TDAs. See the Downstream Drainage exhibits provided in Section 3.6.

Task 2 – Review All Available Information on Study Area

King County iMap and the City of Shoreline's Property Information Interactive Map have both been reviewed to identify any critical areas and existing drainage complaints on and downstream of the project site. In addition, a FEMA map has also been reviewed for any floodplains on or around the project site. According to these maps, a wetland exists along the downstream flow path at Twin Ponds park approximately ¼ mile downstream from the project site. See maps provided on the following page for reference.

Task 3 – Field Inspect the Study Area

A field inspection was completed on March 16, 2020 by Matthew Stefansson. The weather was sunny and approximately 60 degrees. See Section 3.6 for a description of downstream flow paths for both the Basin A TDA and Basin B TDA.

Task 4 – Describe the Drainage System and Existing or Predicted Problems

No existing problems were identified during the field investigation. Drainage complaints along the downstream flow path were also researched on King County iMap. Two complaints were present along the Basin A TDA downstream path, but both were listed as category FI which stands for "SWM Fee Investigation". One complaint existed along the Basin B TDA flow path, but this complaint was closed in 1993. See Section 3.6 for a description of downstream flow paths for both the Basin A TDA and Basin B TDA.

3.2 Sub-basin Description

No offsite area is tributary to the project site. See Section 3.6 for a description of the downstream drainage system.

3.3 Soils/Infiltration Rates

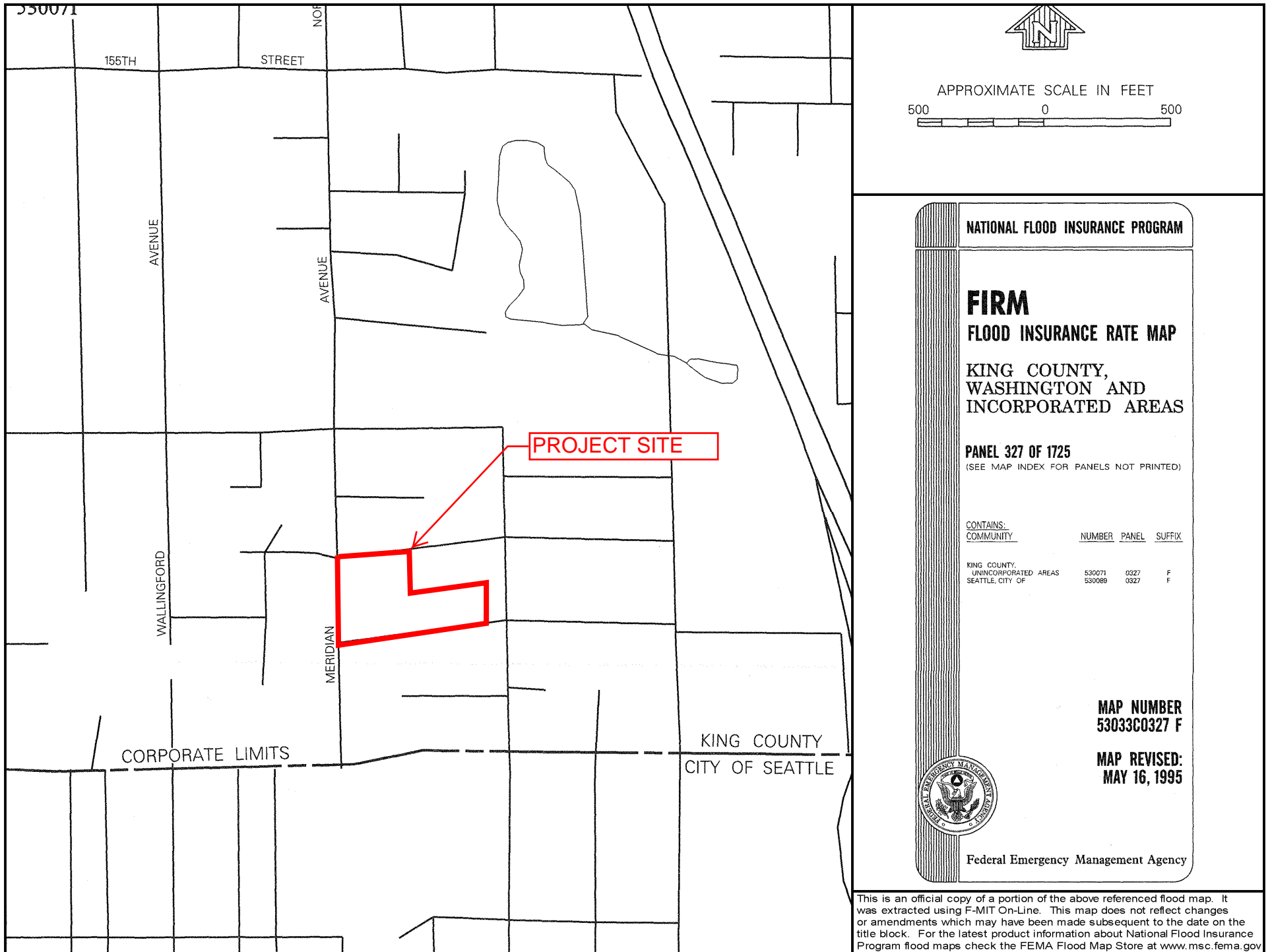
Per the Geotechnical Report by Terra Associates, dated December 13, 2019, the site soils are till generally consisting of six inches of topsoil and organics overlying variable thick layers of glacially derived silty sand and sand with silt. Per the Infiltration Infeasibility memo by Terra Associates, dated June 25, 2020, the PIT test resulted in an infiltrate rate of 0.25 inches per hour. Infiltration is deemed infeasible if the measured infiltration rate is less than 0.3 inches per hour. As the 0.25 inches per hour rate is lower than the required 0.3 inches per hour, infiltration and LID techniques involving infiltration are not suitable for the project site.

3.4 Critical Areas and Flood Plain

There are no critical areas or buffers within or adjacent to the project site. The project site is not located within a floodplain.

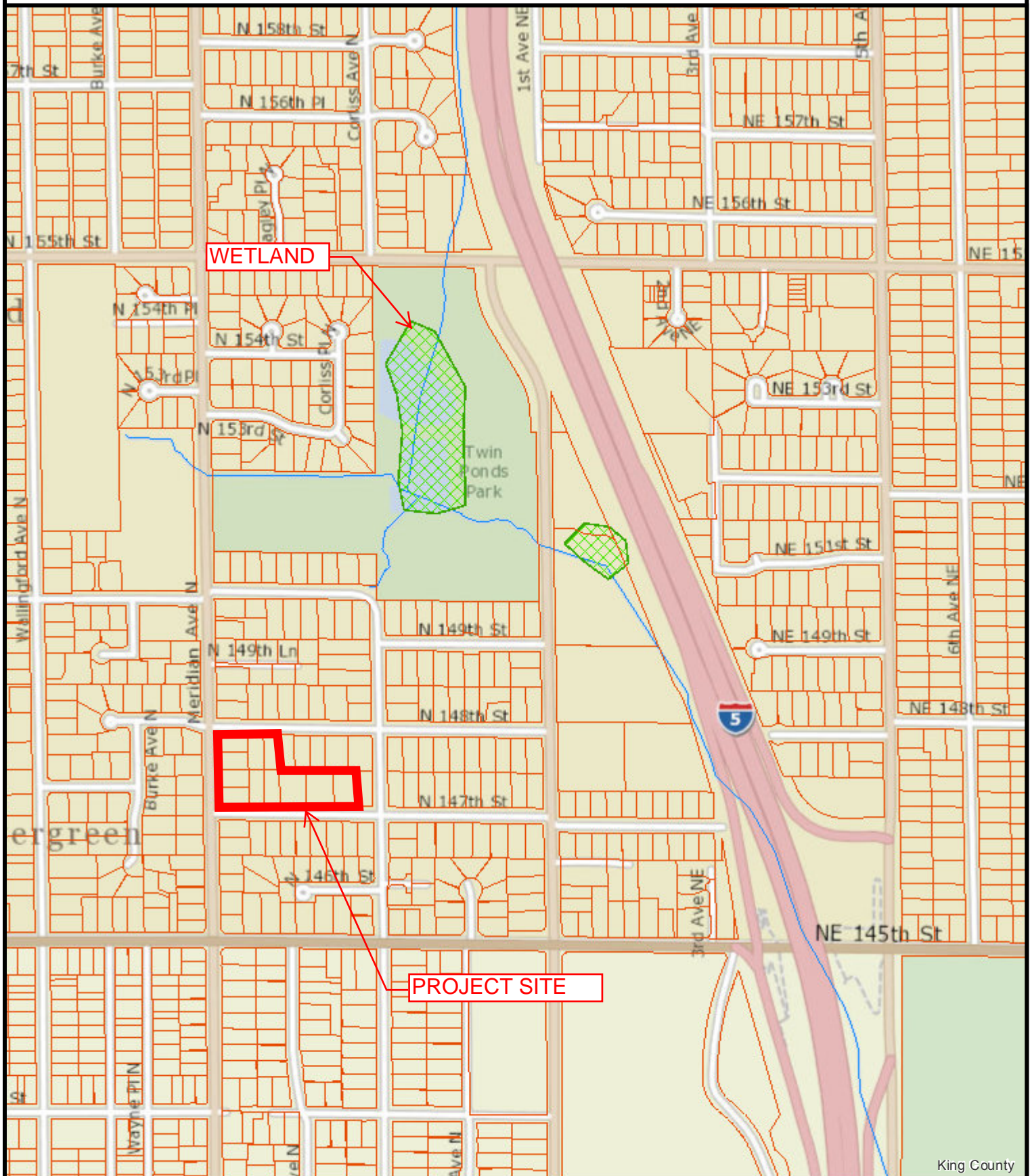
3.5 Assessment Summary

See Section 3.1 for definition of the study area and a discussion of drainage issues. See Section 3.6 for a description of the downstream drainage system. The site is currently developed with existing homes so, conservation of existing habitat and vegetation is not applicable. No critical areas or sensitive areas have been found on or adjacent to the project site. Infiltration is not feasible for this project so protection of infiltration areas is not applicable. No groundwater was encountered during the geotechnical evaluation. Proposed grading attempts to mimic existing grades as closely as possible along with meeting City standards and keeping garages accessible to interior drive aisles. Proposed impervious surfaces will not exceed those as allowed per zoning. The entire site will be developed and disturbed. The site has been designed with consideration of maximizing the unit count to the least amount of infrastructure (roads and utilities) to service the development. Porous pavement is not feasible due to the non-infiltrating soils. The proposed drive aisles are sloped towards the tight-lined storm drainage conveyance system. The buildings have been maximized in height, to limit building footprint, as permitted per City standards for maximum building height. BMP T5.13 will be implemented for disturbed pervious areas.



CRITICAL AREAS

Attachment 2



The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

Date: 4/1/2020

Notes:

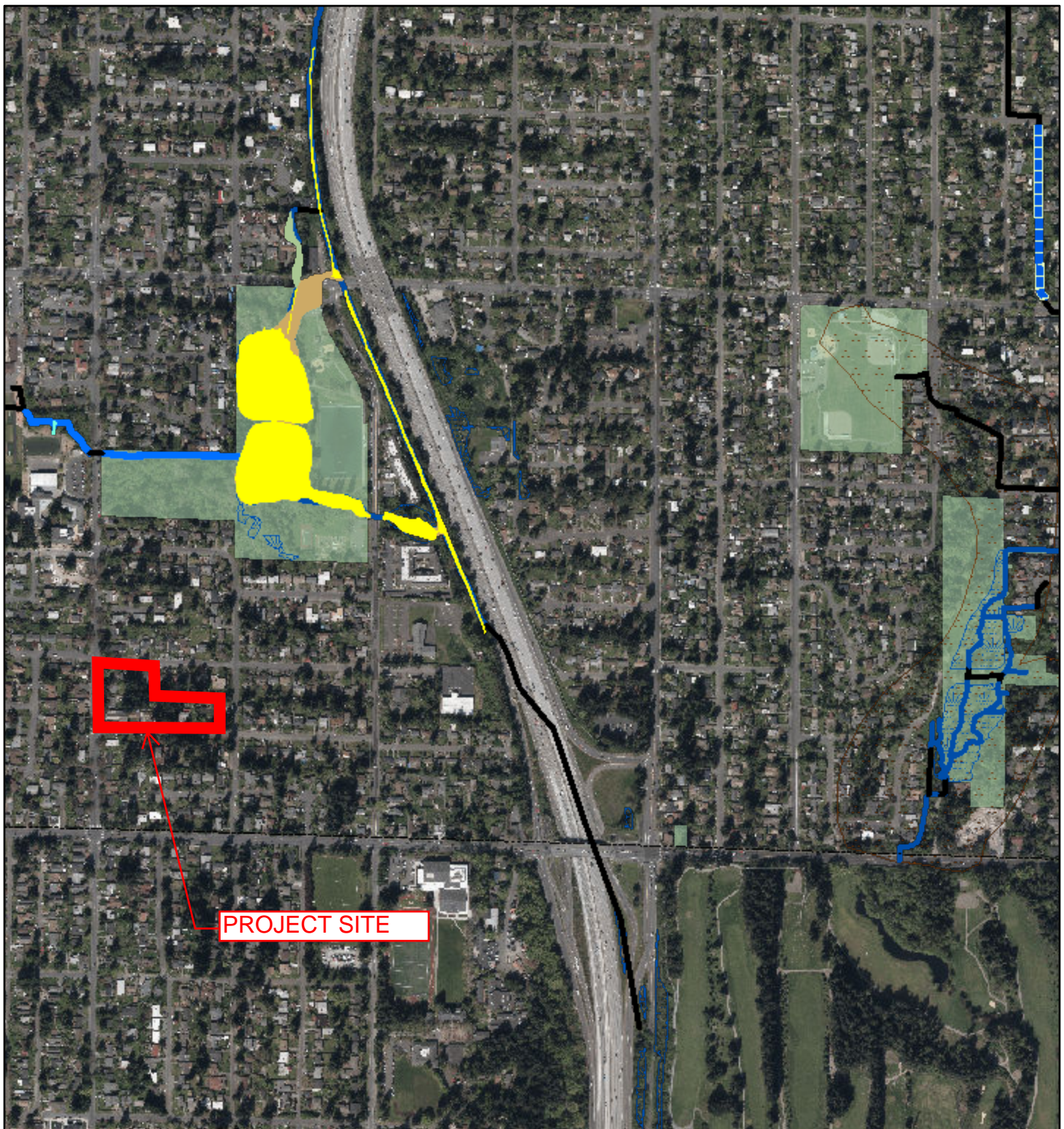
8a-168



King County

Critical Areas

Attachment 2



4/1/2020 12:52:52 PM

1:7,999

Stream

- F: Contains Fish Habitat
- Np: Perennial Non-fish Habitat
- Ns: Seasonal Non-fish Habitat
- Piped
- Not Typed



Wetland

Flood Hazard

- X (old)
- A
- AE
- AH

AO

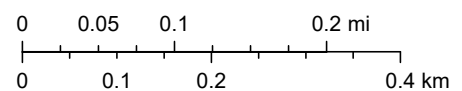
VE

X

Erosion Hazard soils

City Park

City Boundary



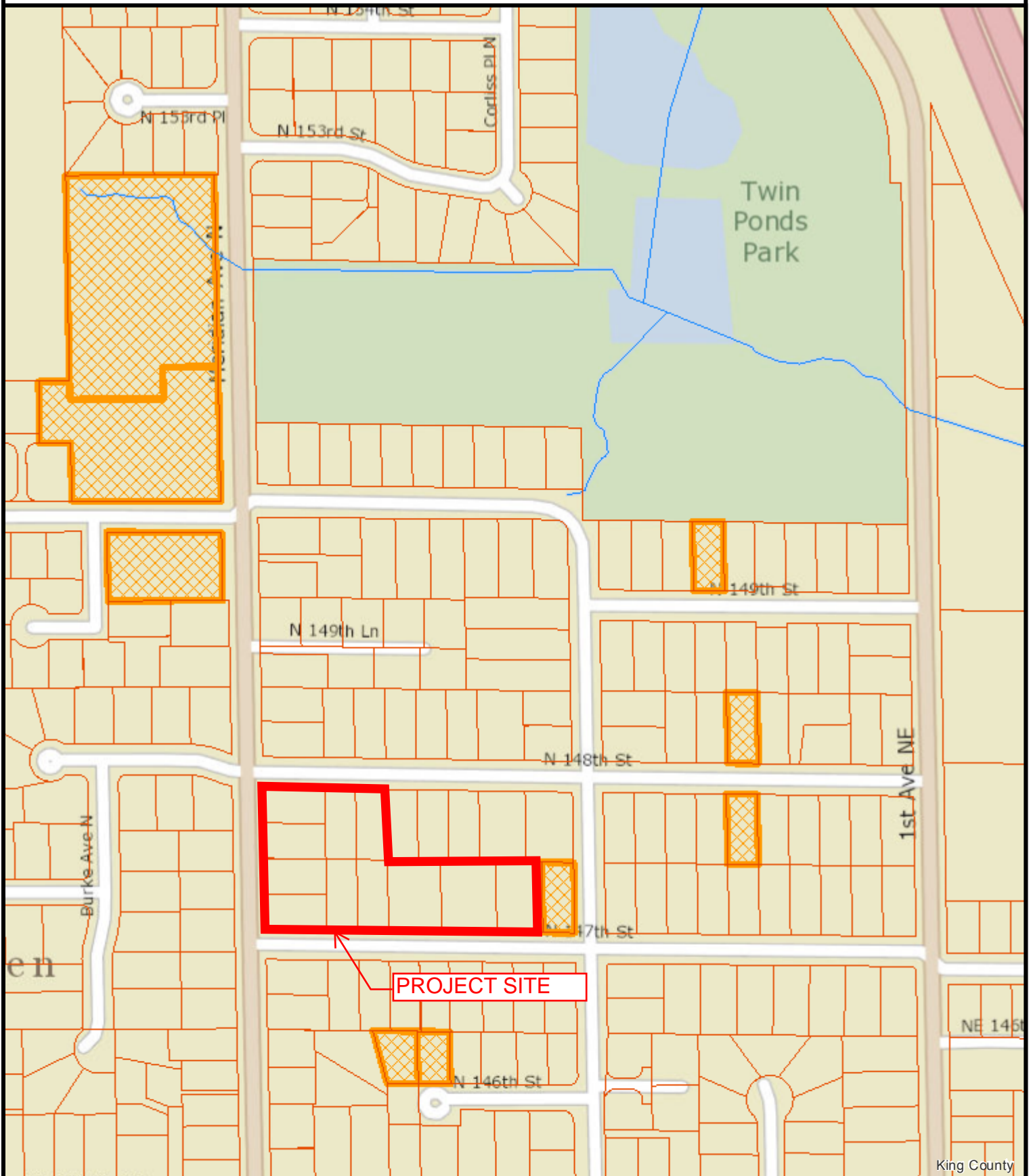
8a-100

Web AppBuilder for ArcGIS

This map is intended for planning purposes only. No warranty is made concerning the accuracy, currency, or completeness of data depicted on the map.

DRAINAGE COMPLAINTS

Attachment 2



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Date: 4/1/2020

Notes:

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King County

3.6 Downstream Analysis

Basin A TDA Downstream

The Basin A TDA generally drains north and west with runoff entering the conveyance system along Meridian Avenue N. See the Downstream Exhibit for Basin A and photos from the field investigation provided on the following pages.

The conveyance system along Meridian Avenue N has been difficult to survey and to analyze where runoff is actually going. It appears that runoff collected by catch basins on both the east and west side Meridian Avenue N is piped to a stormwater mainline somewhere in the middle of Meridian Ave. N. However, no structures connected to this main line were found. The City of Shoreline Surface Water Assets Map shows this mainline and structures near the project frontage but none of the structures were visible or able to be found in the field.

A type I catch basin was found on the east side of Meridian Avenue N just south of N 149th Lane and had a 12-inch pipe running north. From this point on, the downstream system along Meridian Avenue N matched what was shown on the City of Shoreline Surface Water Assets map.

Runoff from the type I catch basin that matches the City's drainage map then flows to a type II catch basin on the east side of Meridian Avenue N and then flows northwest to another type II catch basin on the west side of Meridian Avenue N. Runoff then flows north to a type I catch basin near N 150th Street. After leaving this catch basin, runoff flows north through 12-inch pipe to a type II catch basin still on the west side of Meridian Avenue N. Runoff then flows through a type I catch basin and into another type II catch basin on the west side of Meridian Avenue N. At this point, runoff turns and flows east under Meridian Avenue N into a type II catch basin located east of the sidewalk along the east side of Meridian Avenue N.

Runoff leaves the catch basin and continues to flow east. The pipe then daylights into Meridian Creek that continues to flow east. Runoff reaches the ¼ mile downstream point in Meridian Creek before the creek flows into the large pond at Twins Pond Park.



1 – Looking north along the east side of Meridian Avenue N.



2 – Looking north along the east side of Meridian Avenue N.

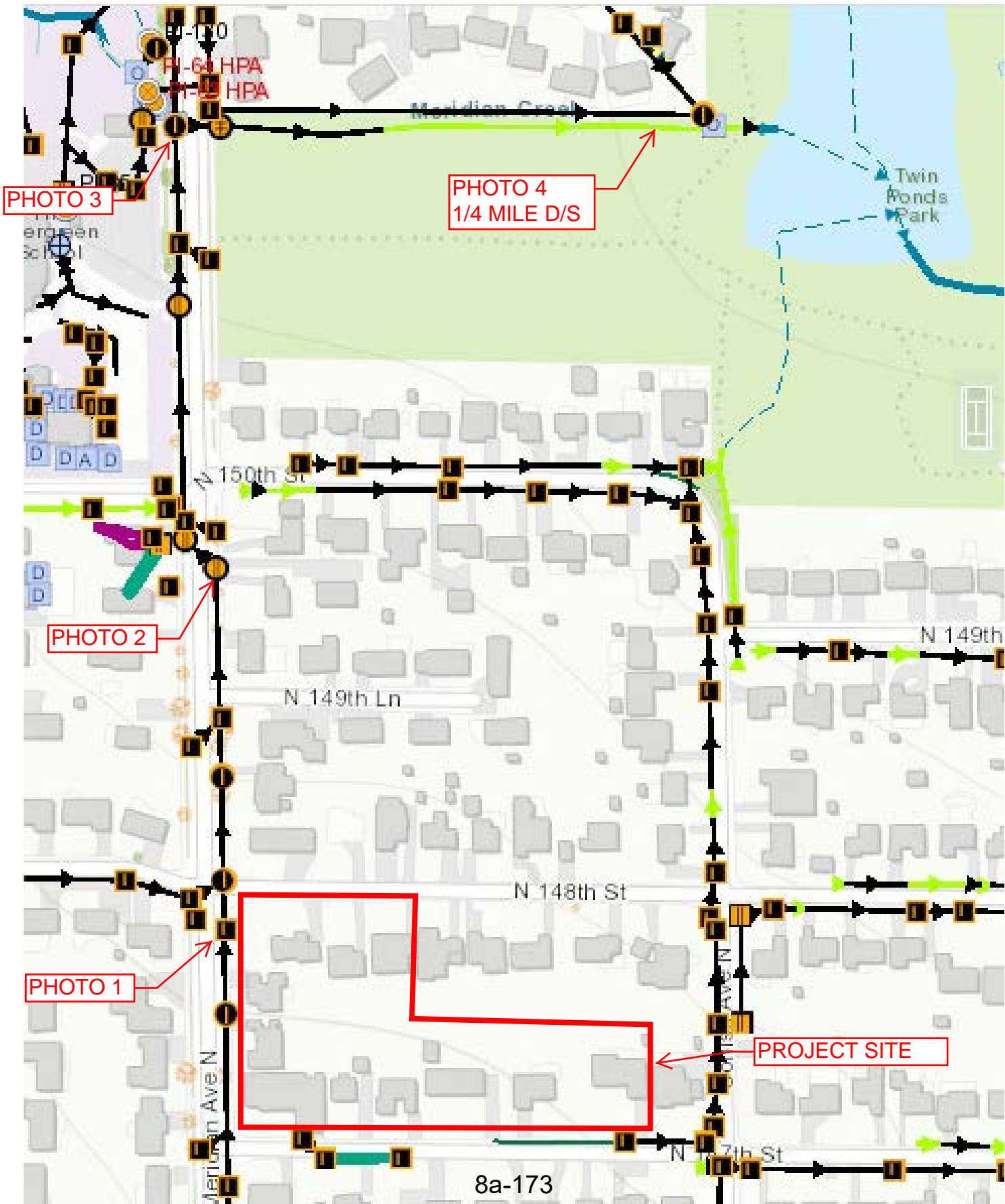


3 – Looking east along the west side of Meridian Avenue N.



4 – Looking west at Meridian Creek.

Basin A TDA Downstream Exhibit



Basin B TDA Downstream

The Basin B TDA generally drains north and through neighboring single-family home properties, eventually entering the conveyance system running north along Corliss Avenue N.

Once runoff reaches Corliss Avenue N, it flows north along the west side of the roadways through a series of type I catch basins. Eventually runoff flows through a stretch of grass lined ditch and then re-enters a piped conveyance system. Runoff then reaches a type I catch basin located at the southwest corner of the intersection of Corliss Avenue N and N 150th Street.

From this catch basin runoff drains northeast across N 150th Street and into another type I catch basin with solid locking lid. This catch basins directs flow east where the pipe daylights into a grass lined ditch flow east and then turning to flow north into Twin Ponds Park.

Runoff flows northeast into Twins Ponds parks in a broad naturally vegetated swale and eventually flows into the pond at Twin Ponds Park. The pond then discharges to Thornton Creek which continues to flow east. After leaving the pond but before reaching 1st Avenue NE, runoff reaches the ¼ mile downstream point.

See the Downstream Exhibit and photos from the field investigation for Basin B provided on the following pages.



1 – Looking north along the west side of Corliss Avenue N.



2 – Looking north along the west side of Corliss Avenue N.

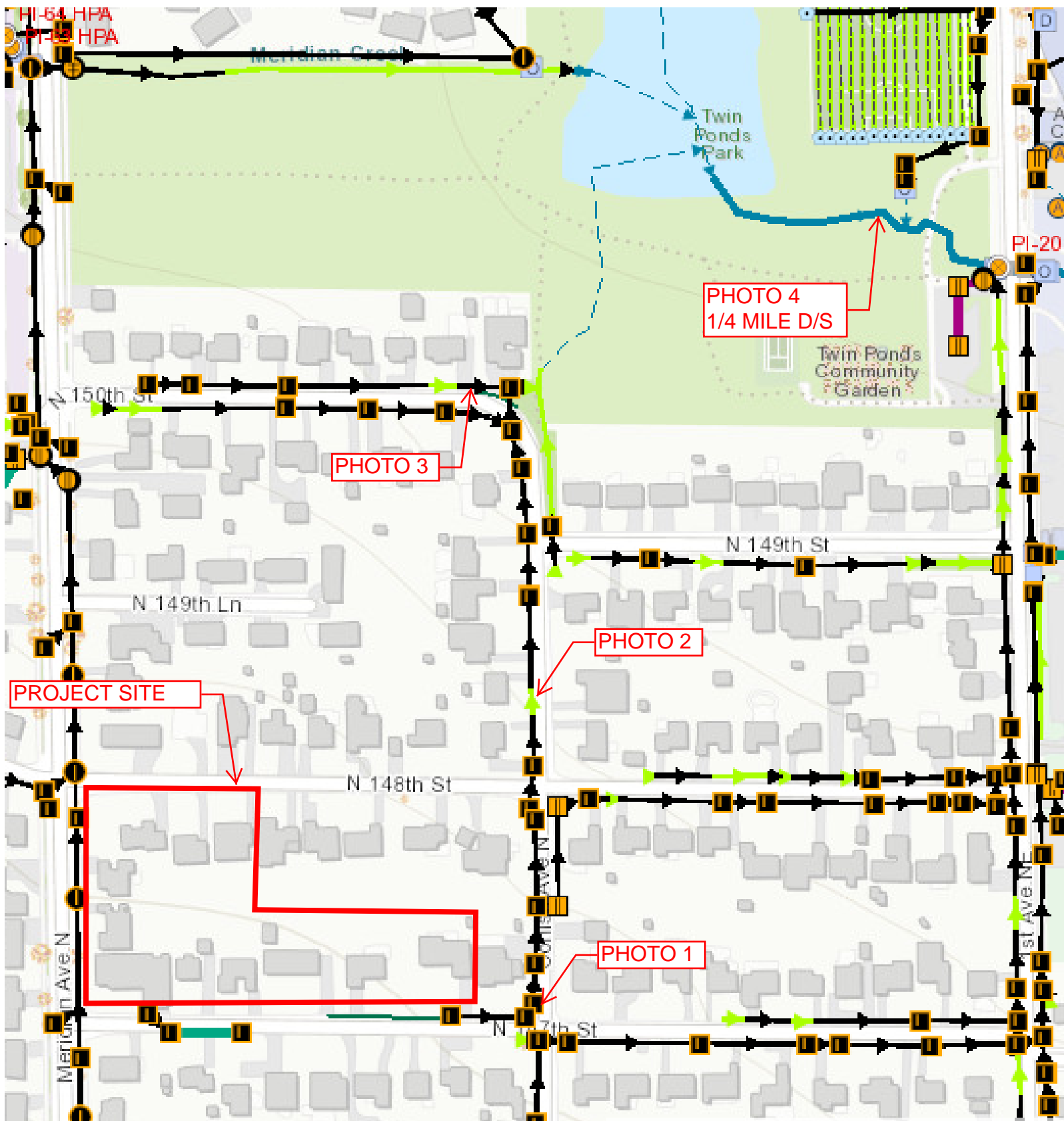


3 – Looking east at grass lined ditch draining into Twin Ponds park.



4 – Looking north at Thornton Creek.

Basin B TDA Downstream Exhibit



4. Construction Stormwater Pollution Prevention Plan

A Construction Stormwater Pollution Prevention Plan (SWPPP) Report has been prepared using the Department of Ecology SWPPP template and has been submitted under separate cover. This report provides both narrative and drawings. Each of the 13 Elements per the 2014 DOE Manual are addressed with information on how these requirements will be met. The name and contact information for the project CESL is also provided in the Construction SWPPP Report.

4.1 Rainy Season Requirements

The rainy season is defined as the months between October 1 and April 30 of any given year. Slope stability and adequate protection of receiving waters are major concerns during the rainy season. City approval will need to be obtained to continue construction during the rainy season.

No steep slopes exist on or adjacent to the project site. No critical areas exist on or adjacent to the project site. Ground water is not anticipated to be an issue. The Geotechnical Report stated that no groundwater was encountered at any of the borings which extended down to approximately 16 feet.

Based on these site characteristics, rainy season construction may be feasible and will be evaluated further.

4.2 Seasonal Suspension Plan

The proposed project would likely continue construction through the rainy season pending City approval when needed. If rainy season construction is prohibited, a Seasonal Suspension Plan will be prepared and provided to the City no later than September 1. The seasonal suspension plan will include the following:

1. CESCL (with contact information) having the authority to direct implementation of additional measures or maintenance and repair of existing measures;
2. Designated point of contact that can call out and direct crews 24 hours a day and seven days a week (24/7), obtain materials, and authorize immediate expenditures for on-site temporary erosion prevention and sediment control work;
3. Inspections increased to weekly;
4. Contingency plans for controlling spills and other potential pollutants which have been developed and are ready to implement at the construction site;
5. Ensure that turbidity in runoff from the construction area does not exceed 25 NTU or 5 NTU above background;
6. Erosion prevention and sediment control plan that protects all disturbed areas:
 - i. Areas that are to be unworked during the wet season shall be seeded and mulched by September 30;
 - ii. Cover measures shall be installed on all areas where seeding is not well established;
 - iii. All soil stockpiles and steep cut-and-fill slopes shall have cover measures;
 - iv. Construction road and parking lots shall be stabilized.

v. Delineation of stockpile locations for on-site cover materials sufficient to cover 50 percent of disturbed areas including at least 50 LF of silt fence (and the necessary stakes) per acre of disturbance.

5. Permanent Stormwater Control

Permanent stormwater control will be provided for both Basin A and Basin B TDA's by a stormwater vault for flow control and BioPod Biofilter for water quality treatment. The vault and BioPod will be located under roadways meaning they will not impact the aesthetics of the site. All utilities associated with the project will be designed and coordinated to ensure no conflicts with the proposed stormwater control measures. Per direction from City of Shoreline staff, the project is not required to convey drainage from the frontage improvements into the proposed flow control and water quality facilities and the frontage improvement area does not need to be modeled as bypass. However, the flow control and water quality facilities have been sized assuming that the frontage improvement area is tributary to the on-site facilities. Email correspondence between Core Design, Inc. and the City of Shoreline stating this requirement is provided on the following pages. As well, City of Shoreline staff has permitted the project to discharge all its drainage to the northeast. Email correspondence between Core Design, Inc. and the City of Shoreline stating this drainage basin diversion allowance is provided on the following pages.

5.1 Low Impact Development and Flow Control

5.1.1 Low Impact Development

Minimum Requirement #5, List #2 BMP Evaluation

Lawn and Landscaped Areas:

- Post-Construction Soil Quality and Depth (BMP T5.13)
 - This BMP is **feasible** and will be implemented for all disturbed pervious areas on the project site. Because this BMP will be implemented, pervious areas will be modeled as pasture in the developed condition for flow control modeling, per Chapter 5 Section BMP T5.13 of the 2014 DOE Manual.

Roofs

- Full Dispersion (BMP T5.30)
 - Full dispersion is **not feasible** for roof area because the required length of naturally vegetated flow path cannot be provided on the project site.
- Bioretention BMPs
 - Bioretention is **not feasible** because the geotechnical evaluation recommends infiltration not be used. In addition, there is no available space that allows for a safe overflow pathway to the municipal separate storm sewer system or private storm sewer system.
- Downspout Dispersion Systems (BMP T5.10B)
 - Downspout dispersion systems are **not feasible** for roof area because the required vegetated flow path cannot be provided for splash blocks (50 feet) or gravel filled trenches (25 feet). Area on site with the available flow path length would direct runoff toward neighboring houses.
- Perforated Stub Out Connections (BMP T5.10C)

- Perforated stub out connections are **not feasible** for the roofs area due to lack of available space taking into consideration the required 10-foot setback, space required for the facilities, and vicinity of hard surfaces. One location was re-reviewed off the southwest corner of Bldg G but, the roots from the proposed and existing trees would compromise the integrity of the system.

Other Hard Surfaces

- Full Dispersion (BMP T5.30)
 - Full dispersion is **not feasible** for other hard surfaces because the required length of naturally vegetated flow path cannot be provided on the project site.
- Permeable Pavement (BMP T5.15)
 - Permeable pavement is **not feasible** for other hard surfaces because the measured infiltration rate (0.25 inches per hour) is less than 0.3 inches per hour. See infiltration testing results from Terra Associates provided in Appendix A.
- Bioretention BMPs
 - Bioretention is **not feasible** because the geotechnical evaluation recommends infiltration not be used. In addition, there is no available space that allows for a safe overflow pathway to the municipal separate storm sewer system or private storm sewer system.
- Sheet Flow Dispersion (BMP T5.12) or Concentrated Flow Dispersion (BMP T5.11)
 - Both dispersion BMPs are **not feasible** because the required vegetated flow path cannot be provided on the project site. Area on site with the available flow path length would direct runoff toward neighboring houses.

5.1.2 Flow Control

Flow control will be accommodated within a stormwater vault utilizing live storage. Storage within the vault will be designed according to the DOE Flow Control Standard. Stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow. The pre-developed condition to be matched is a forested land cover.

Per the Geotechnical Report completed by Terra Associates Inc, soils on site are considered till soils.

Matthew Stefansson

From: Alisa Nguyen <anguyen@shorelinewa.gov>
Sent: Wednesday, February 5, 2020 10:38 AM
To: Matthew Stefansson
Subject: RE: [EXTERNAL] Townhome Project 14718 Meridian Ave N

Hi Matthew,

The bulb design look exactly like what we'd expect to see. The only thing note noted in the sketch is that the radii for the bulb transition should be 15'. The 20' radius for the corner is correct. The purpose of the bulb is to narrow down the street for the pedestrian crossing. The 32' wide street provides space for on-street parking.

Regarding the stormwater. We don't allow people to take ROW water onsite. Instead you can oversize your on-site detention system to compensate for the ROW areas without directing the flows there. We don't require you to model the ROW area as true bypass; you can model it like the ROW flows are directed onsite.

Thanks,

Alisa Nguyen (Arment), P.E.
(206) 801-2473

From: Matthew Stefansson <MJS@coredesigninc.com>
Sent: Wednesday, February 5, 2020 9:43 AM
To: Alisa Nguyen <anguyen@shorelinewa.gov>
Subject: [EXTERNAL] Townhome Project 14718 Meridian Ave N

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Alisa,

I am working on a project located at 14718 Meridian Ave N. Project consists of 7 total parcels and had a pre-application file number of PRE19-0131. I have a couple of questions for you.

The pre-app notes say to provide a curb bulb on the corner of N 147th St and extend the bulb through the driveway. Can you take a look at the attached sketch and let me know if the curb bulb shown is correct? Is the bulb being provided for parking along 147th St? The bulb as shown on the attached reduces pavement width along 147th from 16 ft to 11 ft. Can you also confirm that the curb radius on the intersection should be 20 ft as shown?

My other question is regarding the storm drainage design along the frontage. Are there any restrictions regarding routing drainage from the ROW (proposed frontage improvements or existing roadway area) to our proposed detention facilities on site?

Thanks,

Matthew J. Stefansson, E.I.T.
Civil Engineer
Core Design Inc.

O 425.885.7877

www.coredesigninc.com

From: [Taylor Brown](#)
To: [Gina Brooks](#)
Subject: RE: [EXTERNAL] 5 Degrees - Storm Routing for South Vault
Date: Wednesday, February 24, 2021 4:29:06 PM

Hey Gina,

Good news – the City will allow the project to route all runoff to the east. With that, the design cannot create any flooding, ponding, or drainage issues.

Still working through responses to the NE 147th frontage termination and the NE 148th curb ramp – should have something to you soon.

Thanks,

Taylor Brown, PE
Development Review Engineer
Public Works | City of Shoreline | 206.801.2484
*Supporting a sustainable and vibrant community through
stewardship of our public infrastructure and natural environment.*

From: Gina Brooks <GRB@coredesigninc.com>
Sent: Wednesday, February 24, 2021 7:36 AM
To: Taylor Brown <tbrown@shorelinewa.gov>
Subject: RE: [EXTERNAL] 5 Degrees - Storm Routing for South Vault

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Taylor,

Hoping to get clarification on your options below. See my questions in red below. Thanks again for the thorough answers to my questions.

Sincerely,

Gina R. Brooks, P.E.
Associate, Sr. Project Engineer
Core Design Inc.

O 425.885.7877

www.coredesigninc.com

From: Taylor Brown <tbrown@shorelinewa.gov>
Sent: Tuesday, February 23, 2021 5:57 PM
To: Gina Brooks <GRB@coredesigninc.com>
Subject: RE: [EXTERNAL] 5 Degrees - Storm Routing for South Vault

Hey Gina,

Ideally the connection on NE 148th should be made to the east, but this City is open to allowing connection to the west for the small remainder of gutter flow from the project. I want to make sure I understand the second question being that there are two proposed systems on NE 147th.

If the question is can you route both onsite basins, A and B, to the NE 147th system headed east, the answer is yes, the City is open to routing all on-site drainage in this direction as long as backwater calculations are provided for the proposed system. Are we permitted to take the drainage at the west end of 147th that conveys north along Meridian to the east as well (CBs A12 – A1)? Would like to eliminate the storm connection along the east side of Meridian north of 148th if I can route everything to the east. In other words, discharge CB A1 towards the east on 148th, along 148th, to Corliss.

If the question is can you route both onsite basins, A and B, to the NE 147th system headed west, the answer is not likely. The integrity and the capacity of the downstream system in Meridian is largely unknown and both would need to be verified before we would allow the natural discharge location for the on-site basin to be modified. Understood. Thank you for the explanation.

If I've completely misunderstood the question, please let me know as soon as possible. I have a meeting with the City Engineer tomorrow afternoon and would like to get answers back to you before something else on my list of tasks attempts to jump the line.

Thanks again for your patience,

Taylor Brown, PE

Development Review Engineer

Public Works | City of Shoreline | 206.801.2484

*Supporting a sustainable and vibrant community through
stewardship of our public infrastructure and natural environment.*

From: Gina Brooks <GRB@coredesigninc.com>

Sent: Friday, February 12, 2021 3:41 PM

To: Taylor Brown <tbrown@shorelinewa.gov>

Subject: [EXTERNAL] 5 Degrees - Storm Routing for South Vault

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Taylor,

I just read your response to the below question I had. The CB that would be placed at the east end of the 148th Frontage improvements would be located within a separate drainage basin than the drainage going to 147th. Are we permitted to route and divert this drainage to the west (see yellow highlight)? If so, can we route our site drainage that, in its existing condition, converges at the intersection of Corliss and 148th to the 147th conveyance system we are building? This would significantly simplify our work. Please let me know your thoughts as I am hopeful we can do what I am proposing above.

21. Page 30, ROW20-1678, Right of Way Permit, #11f. Hoping you can clarify this comment related to adding CB's along 148th. 148th has a high point about midpoint along the frontage improvements. CB's have been provided for the portion of road draining west. For the portion of road draining east, we did not add CB's as the required distance to the next downstream CB from the high point in road, 200 LF (for average slope between 1% and 3%), is more than the curb length of 119 LF. As well, there is no downstream conveyance system to which to connect to. Can you show me where in the code it is required for us to add CB's when we meet the spacing requirements? See section 13.5 and line item 3 under 'Frontage Improvements' of the pre-app memo for the project. The current configuration will result in ponding at the east end of the property. A CB is required at the eastern edge of the property line (i.e. the extents of the frontage improvements) to prevent the ponding condition. The connection can be made to the system to the west or connected to the system to the east, in Corliss Ave.

Thanks so much,

Gina R. Brooks, P.E.

Associate, Sr. Project Engineer

Core Design Inc.

O 425.885.7877

www.coredesigninc.com

TABLE III-1
EQUIVALENCE BETWEEN SOIL TYPES CLASSIFIED BY U.S. SOIL
CONSERVATION SERVICE AND KING COUNTY RUNOFF TIME SERIES

SCS Soil Type	SCS Hydrologic Soil Group	KCRTS Soil Group	Notes
Alderwood (AgB, AgC, AgD)	C	Till	
Arents, Alderwood Material (AmB, AmC)	C	Till	
Arents, Everett Material (An)	B	Outwash	1
Beausite (BeC, BeD, BeF)	C	Till	2
Bellingham (Bh)	D	Till	3
Briscot (Br)	D	Till	3
Buckley (Bu)	D	Till	4
Earlmont (Ea)	D	Till	3
Edgewick (Ed)	C	Till	3
Everett (EvB, EvC, EvD, EwC)	A/B	Outwash	1
Indianola (InC, InA, InD)	A	Outwash	1
Kitsap (KpB, KpC, KpD)	C	Till	
Klaus (KsC)	C	Outwash	1
Neilton (NeC)	A	Outwash	1
Newberg (Ng)	B	Till	3
Nooksack (Nk)	C	Till	3
Norma (No)	D	Till	3
Orcas (Or)	D	Wetland	
Oridia (Os)	D	Till	3
Ovall (OvC, OvD, OvF)	C	Till	2
Pilchuck (Pc)	C	Till	3
Puget (Pu)	D	Till	3
Puyallup (Py)	B	Till	3
Ragnar (RaC, RaD, RaE)	B	Outwash	1
Renton (Re)	D	Till	3
Salal (Sa)	C	Till	3
Sammamish (Sh)	D	Till	3
Seattle (Sk)	D	Wetland	
Shalcar (Sm)	D	Till	3
Si (Sn)	C	Till	3
Snohomish (So, Sr)	D	Till	3
Sultan (Su)	C	Till	3
Tukwila (Tu)	D	Till	3
Woodinville (Wo)	D	Till	3
<p>Key to Notes:</p> <ol style="list-style-type: none"> Where outwash soils are saturated or underlain at shallow depth (<5 feet) by glacial till, they should be treated as till soils. These are bedrock soils, but calibration of HSPF (Hydrological Simulation Program–Fortran) by King County Surface Water Management shows bedrock soils to have similar hydrologic response to till soils. These are alluvial soils, some of which are underlain by glacial till or have a seasonally high water table. In the absence of detailed study, these soils should be treated as till soils. Buckley soils are formed on the low permeability Osceola mudflow. Hydrologic response is assumed to be similar to that for till soils. 			



Existing Basins

The existing basin boundary area, 2.81 acres, is defined as the project site area plus the extents of improvements within the ROW up to the edge of existing hard surfaces or pavement. See the Existing Conditions Exhibit provided on the following pages which shows the extents of the existing basins for both Basin A and Basin B. The existing basin for both TDAs has been modeled as entirely till-forest. The areas presented in Table 5-1 below show the area(s) input into WWHM for sizing the proposed flow control vault.

Table 5-1 Existing Conditions	
Cover Type	Area
Till-Forest (Basin B)	1.56 Acres
Till-Forest (Basin A)	1.25 Acres
Total	2.81 Acres

Developed Basin

The total developed basin area will match the size of the existing basins, 2.81 acres. Impervious area for the developed condition was conservatively assumed to be 85% as allowed per zoning for storm drainage design. Measured impervious within the site after ROW dedication is 1.94 acres. Added/replaced impervious within dedicated ROWs is 0.29 acre. BMP T5.13 (soil quality and depth) will be implemented for all disturbed pervious areas on the project site meaning that all pervious areas will be modeled as pasture. A minimum area of 0.09 acres will be tree retention area and therefore, will be modeled as forest. All areas not considered impervious or forest will be modeled as pasture. See the Developed Condition Exhibit provided on the following pages. The areas presented in Table 5-2 below show the area(s) input into WWHM for sizing the proposed flow control vault.

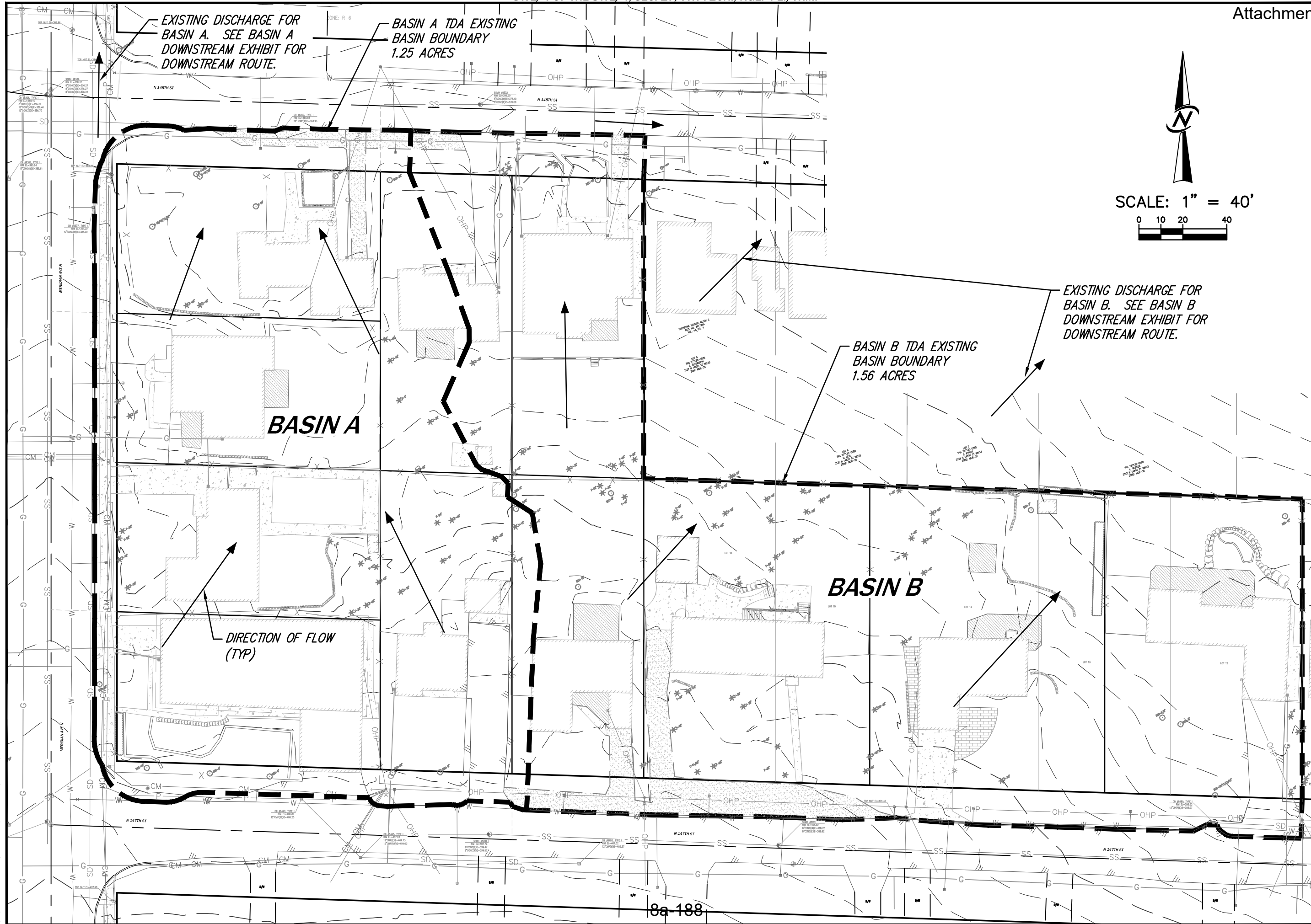
Table 5-2 Developed Conditions	
Cover Type	Area
Till-Forest	0.09 Acre
Till-Pasture	0.33 Acres
Impervious (85%*2.81 ac)	2.39 Acres
Total	2.81 Acres

3/19/2021 8:37 AM J:\2019\19133\ENGINEERING\EXHIBITS\SOR\EX & DEV\EXHIBITSDWG

SW1/4 OF THE SW1/4, SEC. 17, TWP. 26N., RGE. 4 E., W.M.

EXHIBIT 5g

Attachment



EXISTING DISCHARGE FOR
BASIN A. SEE BASIN A
DOWNSTREAM EXHIBIT FOR
DOWNSTREAM ROUTE.

BASIN A TDA EXISTING
BASIN BOUNDARY
1.25 ACRES

BASIN A

DIRECTION OF FLOW
(TYP)

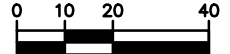
BASIN B TDA EXISTING
BASIN BOUNDARY
1.56 ACRES

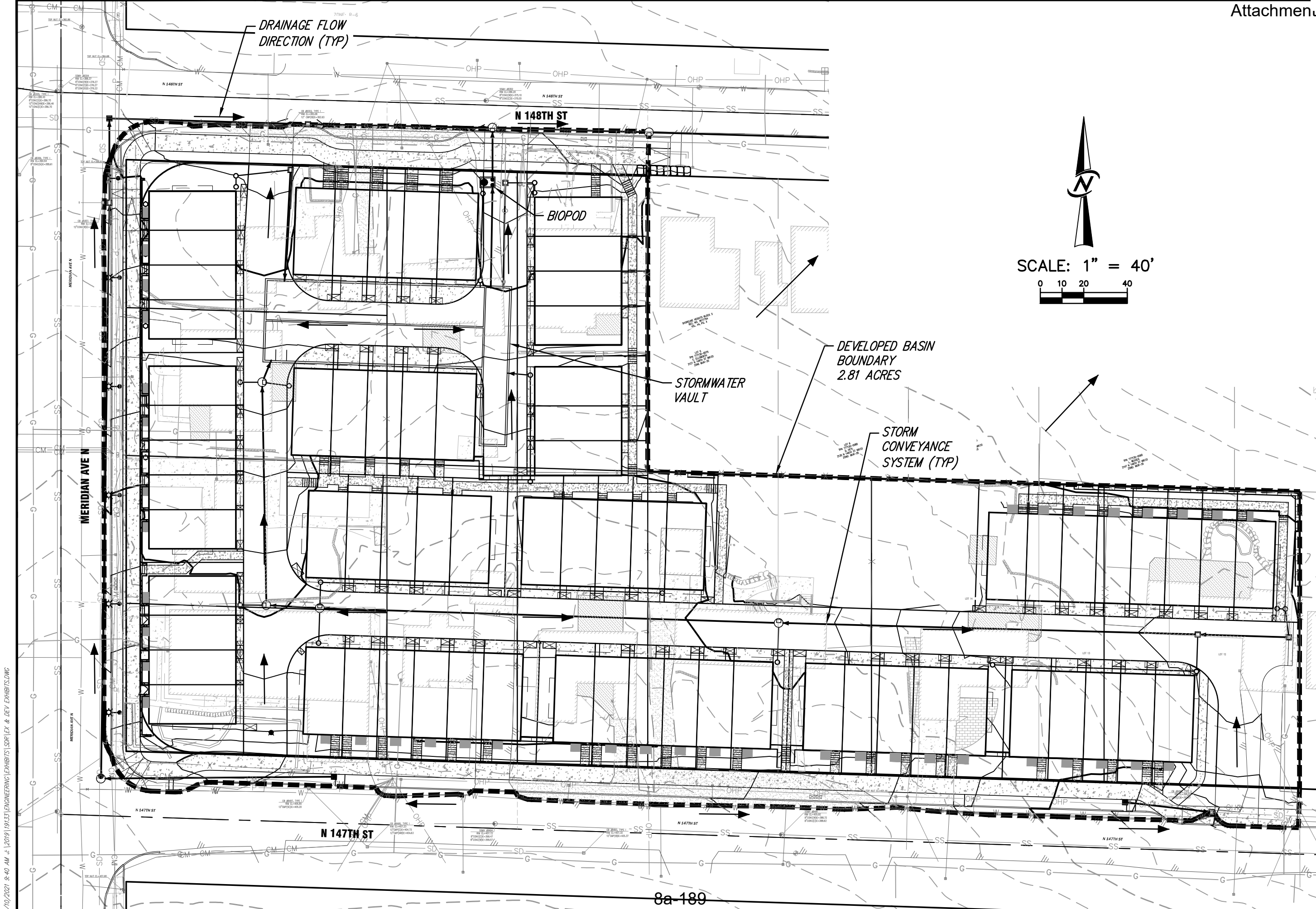
BASIN B

EXISTING DISCHARGE FOR
BASIN B. SEE BASIN B
DOWNSTREAM EXHIBIT FOR
DOWNSTREAM ROUTE.



SCALE: 1" = 40'





8/10/2021 9:40 AM J. [2019] 19133 ENGINEERING EXHIBITS SOR EX & DEV EXHIBITS.DWG

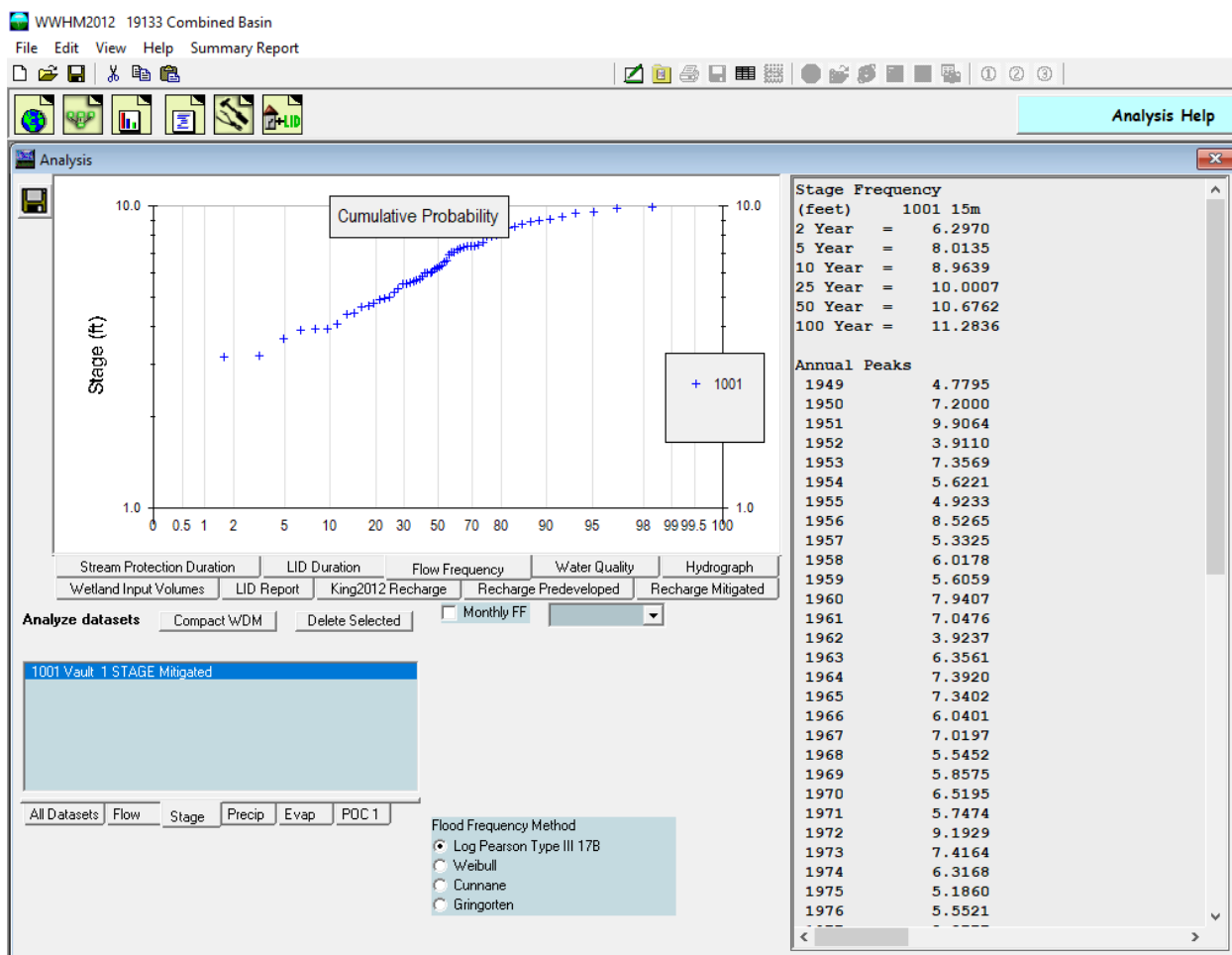
REVISIONS	
NO.	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING	
CORE DESIGN	
12100 NE 195th St, Suite 300, Bellevue, WA 98006	
425.885.7877	
DEVELOPED CONDITIONS EXHIBIT 5 DEGREES	
PULTE HOMES OF WASHINGTON, INC. 3535 FACTORY BLVD SE, #800 BELLEVUE, WA 98006	
DATE	MARCH 2021
DESIGNED	MATTHEW J. STEFANSON, E.I.T.
DRAWN	MATTHEW J. STEFANSON, E.I.T.
APPROVED	GWA R. BROOKS, P.E.
	GWA R. BROOKS, P.E.
	PROJECT MANAGER
SHEET	OF
1	1
PROJECT NUMBER 19133	

Vault Sizing

The drainage analysis was modeled using the Western Washington Hydrology Model (WWHM) software. Per the WWHM printout and screenshot below, the vault surface area required is 4,392 square feet. The 50-year maximum water surface elevation is located at stage 10.68 feet or elevation 375.00 (outlet invert) + 10.68 feet (stage) = elevation 385.68. The required volume is therefore, 4,392 square feet * 10.68 feet = 46,907 cubic feet. The provided vault depth and area will match the minimum required. The proposed vault is therefore, adequately sized to accommodate for the required flow control.

Volume Required: 46,907 cubic feet

Volume Provided: 46,907 cubic feet

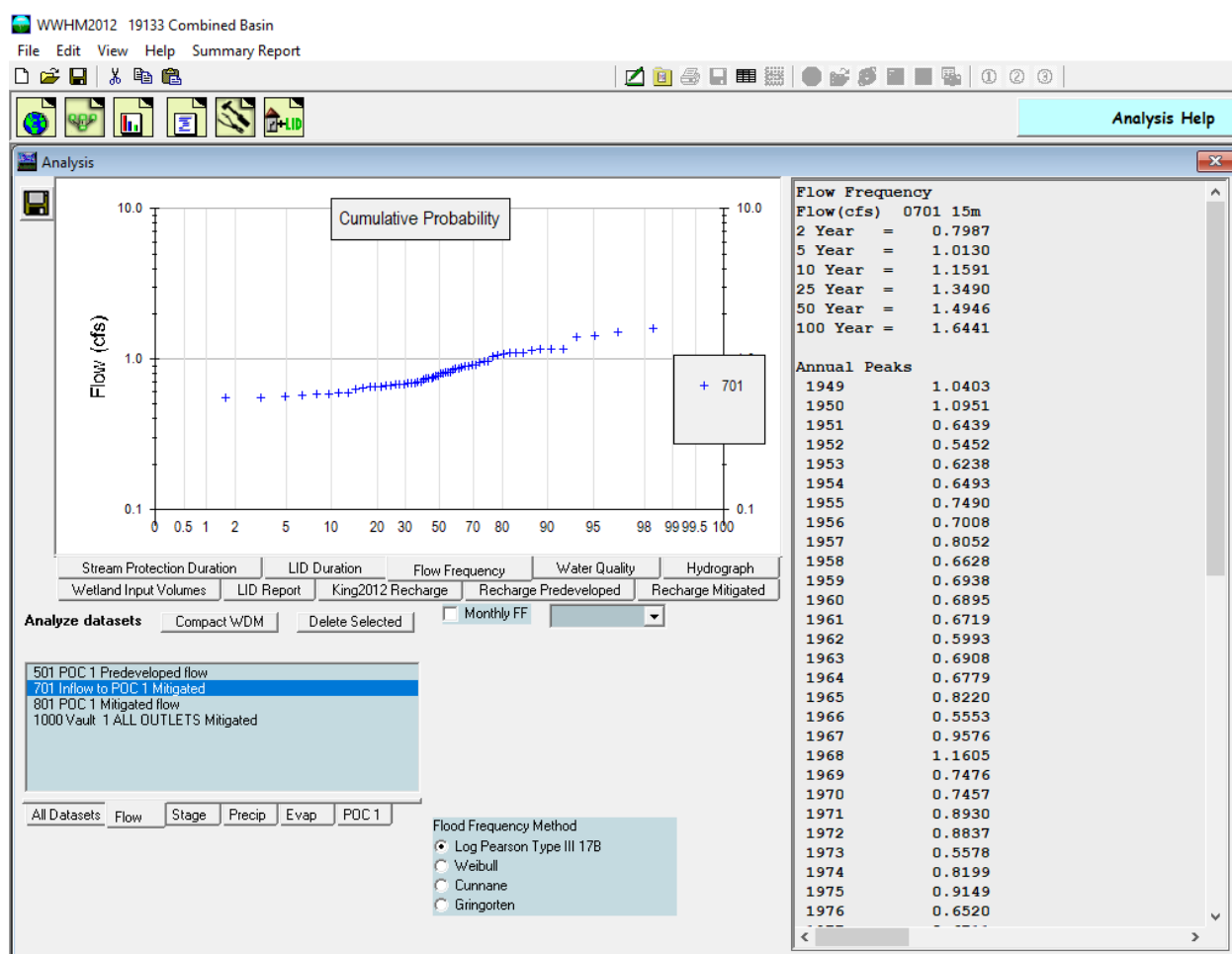


Vault Overflow Analysis

The primary overflow for the vault is the riser pipe on the control structure. The water surface elevation above the riser for the 100-year developed flow is calculated assuming all orifices are plugged. The 100-

year, 15-minute return period storm for the developed tributary area is 1.64 cfs. See screenshot from the WWHM model below which shows the developed site undetained flows.

To pass the 100-year, 15-minute return period storm, 1.64 cfs, through a 12-inch overflow riser, 0.30 feet of head is required per the following equation: $Q = 9.739DH^{3/2}$ or $1.64 = 9.739(1)H^{3/2}$. The primary overflow elevation, elevation 385.80, would therefore, be equal to the elevation of the top of the riser, elevation 385.50, plus the amount of head required to pass the 100-year return period storm, 0.30 feet. The stage for the overflow is elevation 385.80 (overflow water surface) – elevation 375.00 (outlet invert) = 10.80 feet. This 100-year overflow elevation will be utilized as the vault's tailwater elevation for sizing of the conveyance system within Section 5.4. of this Report. Please note, WWHM does not accurately calculate the water surface when the water surface starts to exceed the riser elevation. The 100-year water surface stage noted on the WWHM screenshot above is noted as 11.28 feet.



**WWHM2012
PROJECT REPORT**

Project Name: 19133 Combined Basin
Site Name:
Site Address:
City :
Report Date: 3/5/2021
Gage : Seatac
Data Start : 1948/10/01
Data End : 2009/09/30
Precip Scale: 0.83
Version Date: 2019/09/13
Version : 4.2.17

Low Flow Threshold for POC 1 : 50 Percent of the 2 Year

High Flow Threshold for POC 1: 50 year

PREDEVELOPED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>acre</u>
C, Forest, Mod	2.81

Pervious Total	2.81
-----------------------	-------------

<u>Impervious Land Use</u>	<u>acre</u>
-----------------------------------	--------------------

Impervious Total	0
-------------------------	----------

Basin Total	2.81
--------------------	-------------

Element Flows To:

Surface	Interflow	Groundwater
----------------	------------------	--------------------

MITIGATED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>acre</u>
C, Pasture, Mod	.33
C, Forest, Mod	.09
Pervious Total	0.42
<u>Impervious Land Use</u>	<u>acre</u>
ROADS MOD	1.2
ROOF TOPS FLAT	1.19
Impervious Total	2.39
Basin Total	2.81

Element Flows To:

Surface	Interflow	Groundwater
Vault 1	Vault 1	

Name : Vault 1

Width : 18 ft.

Length : 244 ft.

Depth: 11.5 ft.

Discharge Structure

Riser Height: 10.5 ft.

Riser Diameter: 12 in.

Orifice 1 Diameter: 0.625 in. Elevation: 0 ft.

Orifice 2 Diameter: 1 in. Elevation: 6.85 ft.

Orifice 3 Diameter: 1.25 in. Elevation: 8.5 ft.

Element Flows To:

Outlet 1	Outlet 2
----------	----------

Vault Hydraulic Table

<u>Stage(feet)</u>	<u>Area(ac.)</u>	<u>Volume(ac-ft.)</u>	<u>Discharge(cfs)</u>	<u>Infilt(cfs)</u>
0.0000	0.100	0.000	0.000	0.000
0.1278	0.100	0.012	0.003	0.000
0.2556	0.100	0.025	0.005	0.000
0.3833	0.100	0.038	0.006	0.000
0.5111	0.100	0.051	0.007	0.000
0.6389	0.100	0.064	0.008	0.000
0.7667	0.100	0.077	0.009	0.000
0.8944	0.100	0.090	0.010	0.000
1.0222	0.100	0.103	0.010	0.000
1.1500	0.100	0.116	0.011	0.000
1.2778	0.100	0.128	0.012	0.000

1.4056	0.100	0.141	0.012	0.000
1.5333	0.100	0.154	0.013	0.000
1.6611	0.100	0.167	0.013	0.000
1.7889	0.100	0.180	0.014	0.000
1.9167	0.100	0.193	0.014	0.000
2.0444	0.100	0.206	0.015	0.000
2.1722	0.100	0.219	0.015	0.000
2.3000	0.100	0.231	0.016	0.000
2.4278	0.100	0.244	0.016	0.000
2.5556	0.100	0.257	0.016	0.000
2.6833	0.100	0.270	0.017	0.000
2.8111	0.100	0.283	0.017	0.000
2.9389	0.100	0.296	0.018	0.000
3.0667	0.100	0.309	0.018	0.000
3.1944	0.100	0.322	0.018	0.000
3.3222	0.100	0.335	0.019	0.000
3.4500	0.100	0.347	0.019	0.000
3.5778	0.100	0.360	0.020	0.000
3.7056	0.100	0.373	0.020	0.000
3.8333	0.100	0.386	0.020	0.000
3.9611	0.100	0.399	0.021	0.000
4.0889	0.100	0.412	0.021	0.000
4.2167	0.100	0.425	0.021	0.000
4.3444	0.100	0.438	0.022	0.000
4.4722	0.100	0.450	0.022	0.000
4.6000	0.100	0.463	0.022	0.000
4.7278	0.100	0.476	0.023	0.000
4.8556	0.100	0.489	0.023	0.000
4.9833	0.100	0.502	0.023	0.000
5.1111	0.100	0.515	0.024	0.000
5.2389	0.100	0.528	0.024	0.000
5.3667	0.100	0.541	0.024	0.000
5.4944	0.100	0.554	0.024	0.000
5.6222	0.100	0.566	0.025	0.000
5.7500	0.100	0.579	0.025	0.000
5.8778	0.100	0.592	0.025	0.000
6.0056	0.100	0.605	0.026	0.000
6.1333	0.100	0.618	0.026	0.000
6.2611	0.100	0.631	0.026	0.000
6.3889	0.100	0.644	0.026	0.000
6.5167	0.100	0.657	0.027	0.000
6.6444	0.100	0.669	0.027	0.000
6.7722	0.100	0.682	0.027	0.000
6.9000	0.100	0.695	0.033	0.000
7.0278	0.100	0.708	0.039	0.000
7.1556	0.100	0.721	0.043	0.000
7.2833	0.100	0.734	0.046	0.000
7.4111	0.100	0.747	0.049	0.000
7.5389	0.100	0.760	0.051	0.000
7.6667	0.100	0.773	0.053	0.000
7.7944	0.100	0.785	0.056	0.000
7.9222	0.100	0.798	0.057	0.000
8.0500	0.100	0.811	0.059	0.000
8.1778	0.100	0.824	0.061	0.000
8.3056	0.100	0.837	0.063	0.000
8.4333	0.100	0.850	0.064	0.000
8.5611	0.100	0.863	0.077	0.000

8.6889	0.100	0.876	0.086	0.000
8.8167	0.100	0.889	0.093	0.000
8.9444	0.100	0.901	0.099	0.000
9.0722	0.100	0.914	0.104	0.000
9.2000	0.100	0.927	0.109	0.000
9.3278	0.100	0.940	0.113	0.000
9.4556	0.100	0.953	0.117	0.000
9.5833	0.100	0.966	0.121	0.000
9.7111	0.100	0.979	0.125	0.000
9.8389	0.100	0.992	0.129	0.000
9.9667	0.100	1.004	0.132	0.000
10.094	0.100	1.017	0.136	0.000
10.222	0.100	1.030	0.139	0.000
10.350	0.100	1.043	0.142	0.000
10.478	0.100	1.056	0.145	0.000
10.606	0.100	1.069	0.510	0.000
10.733	0.100	1.082	1.266	0.000
10.861	0.100	1.095	1.965	0.000
10.989	0.100	1.108	2.339	0.000
11.117	0.100	1.120	2.633	0.000
11.244	0.100	1.133	2.880	0.000
11.372	0.100	1.146	3.106	0.000
11.500	0.100	1.159	3.317	0.000
11.628	0.100	1.121	3.515	0.000

ANALYSIS RESULTS

Stream Protection Duration

Predeveloped Landuse Totals for POC #1

Total Pervious Area:2.81

Total Impervious Area:0

Mitigated Landuse Totals for POC #1

Total Pervious Area:0.42

Total Impervious Area:2.39

Flow Frequency Return Periods for Predeveloped. POC #1

<u>Return Period</u>	<u>Flow(cfs)</u>
2 year	0.053917
5 year	0.090402
10 year	0.111243
25 year	0.133055
50 year	0.146276
100 year	0.15728

Flow Frequency Return Periods for Mitigated. POC #1

<u>Return Period</u>	<u>Flow(cfs)</u>	
2 year	0.034655	← 2 year outflow for Water Quality Sizing

5 year	0.058834
10 year	0.080334
25 year	0.115078
50 year	0.147394
100 year	0.186077

Stream Protection Duration
Annual Peaks for Predeveloped and Mitigated. POC #1

Year	Predeveloped	Mitigated
1949	0.060	0.023
1950	0.074	0.044
1951	0.138	0.131
1952	0.039	0.021
1953	0.031	0.048
1954	0.050	0.025
1955	0.083	0.024
1956	0.067	0.074
1957	0.042	0.024
1958	0.056	0.026
1959	0.050	0.025
1960	0.073	0.058
1961	0.051	0.040
1962	0.026	0.021
1963	0.033	0.027
1964	0.055	0.049
1965	0.032	0.048
1966	0.036	0.026
1967	0.079	0.039
1968	0.050	0.025
1969	0.046	0.026
1970	0.034	0.027
1971	0.034	0.025
1972	0.102	0.109
1973	0.043	0.049
1974	0.045	0.027
1975	0.056	0.024
1976	0.044	0.025
1977	0.002	0.021
1978	0.038	0.027
1979	0.021	0.019
1980	0.065	0.098
1981	0.031	0.025
1982	0.041	0.053
1983	0.060	0.026
1984	0.035	0.022
1985	0.019	0.021
1986	0.104	0.026
1987	0.080	0.058
1988	0.029	0.024
1989	0.023	0.022
1990	0.160	0.060
1991	0.118	0.104
1992	0.038	0.027
1993	0.041	0.020
1994	0.010	0.019
1995	0.067	0.048

1996	0.139	0.122
1997	0.115	0.119
1998	0.023	0.023
1999	0.080	0.090
2000	0.044	0.026
2001	0.005	0.017
2002	0.050	0.035
2003	0.056	0.024
2004	0.061	0.101
2005	0.049	0.023
2006	0.073	0.064
2007	0.133	0.130
2008	0.167	0.069
2009	0.090	0.045

Stream Protection Duration
Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	0.1675	0.1311
2	0.1602	0.1300
3	0.1394	0.1223
4	0.1380	0.1186
5	0.1329	0.1089
6	0.1178	0.1036
7	0.1148	0.1012
8	0.1038	0.0983
9	0.1025	0.0900
10	0.0895	0.0737
11	0.0830	0.0693
12	0.0803	0.0635
13	0.0800	0.0596
14	0.0786	0.0582
15	0.0739	0.0581
16	0.0734	0.0527
17	0.0729	0.0493
18	0.0673	0.0488
19	0.0668	0.0481
20	0.0652	0.0480
21	0.0613	0.0477
22	0.0605	0.0451
23	0.0600	0.0444
24	0.0560	0.0401
25	0.0558	0.0392
26	0.0558	0.0347
27	0.0548	0.0273
28	0.0511	0.0271
29	0.0502	0.0267
30	0.0501	0.0266
31	0.0498	0.0265
32	0.0495	0.0264
33	0.0492	0.0261
34	0.0463	0.0261
35	0.0454	0.0260
36	0.0442	0.0259
37	0.0436	0.0257
38	0.0430	0.0254

39	0.0423	0.0253
40	0.0410	0.0251
41	0.0407	0.0251
42	0.0386	0.0250
43	0.0377	0.0250
44	0.0376	0.0245
45	0.0363	0.0241
46	0.0346	0.0237
47	0.0338	0.0236
48	0.0336	0.0235
49	0.0326	0.0232
50	0.0320	0.0229
51	0.0315	0.0228
52	0.0312	0.0223
53	0.0288	0.0222
54	0.0263	0.0214
55	0.0232	0.0210
56	0.0232	0.0210
57	0.0206	0.0209
58	0.0193	0.0202
59	0.0105	0.0189
60	0.0052	0.0189
61	0.0019	0.0167

Stream Protection Duration**POC #1****The Facility PASSED****The Facility PASSED.****Flow(cfs) Predev Mit Percentage Pass/Fail**

0.0270	17926	17648	98	Pass
0.0282	16330	11045	67	Pass
0.0294	14972	10611	70	Pass
0.0306	13714	10215	74	Pass
0.0318	12637	9826	77	Pass
0.0330	11665	9477	81	Pass
0.0342	10818	9133	84	Pass
0.0354	10012	8804	87	Pass
0.0366	9272	8408	90	Pass
0.0378	8639	8031	92	Pass
0.0390	8061	7683	95	Pass
0.0402	7569	7289	96	Pass
0.0414	7099	6887	97	Pass
0.0426	6667	6536	98	Pass
0.0438	6254	6190	98	Pass
0.0450	5863	5779	98	Pass
0.0462	5491	5369	97	Pass
0.0474	5116	5011	97	Pass
0.0487	4768	4637	97	Pass
0.0499	4487	4327	96	Pass
0.0511	4214	4025	95	Pass
0.0523	3995	3720	93	Pass
0.0535	3747	3403	90	Pass
0.0547	3531	3121	88	Pass
0.0559	3322	2866	86	Pass
0.0571	3140	2571	81	Pass

0.0583	2939	2278	77	Pass
0.0595	2766	2077	75	Pass
0.0607	2607	1871	71	Pass
0.0619	2464	1661	67	Pass
0.0631	2319	1414	60	Pass
0.0643	2171	1140	52	Pass
0.0655	2050	1013	49	Pass
0.0667	1942	987	50	Pass
0.0679	1836	967	52	Pass
0.0691	1750	948	54	Pass
0.0703	1642	926	56	Pass
0.0716	1523	907	59	Pass
0.0728	1422	889	62	Pass
0.0740	1333	868	65	Pass
0.0752	1267	854	67	Pass
0.0764	1196	840	70	Pass
0.0776	1131	817	72	Pass
0.0788	1068	797	74	Pass
0.0800	1014	779	76	Pass
0.0812	964	759	78	Pass
0.0824	927	738	79	Pass
0.0836	889	720	80	Pass
0.0848	853	707	82	Pass
0.0860	809	689	85	Pass
0.0872	770	669	86	Pass
0.0884	730	643	88	Pass
0.0896	692	614	88	Pass
0.0908	655	590	90	Pass
0.0920	632	570	90	Pass
0.0932	605	547	90	Pass
0.0945	558	523	93	Pass
0.0957	529	491	92	Pass
0.0969	506	445	87	Pass
0.0981	480	410	85	Pass
0.0993	446	385	86	Pass
0.1005	413	359	86	Pass
0.1017	381	333	87	Pass
0.1029	345	308	89	Pass
0.1041	308	287	93	Pass
0.1053	285	276	96	Pass
0.1065	268	261	97	Pass
0.1077	250	249	99	Pass
0.1089	231	232	100	Pass
0.1101	216	222	102	Pass
0.1113	199	201	101	Pass
0.1125	185	187	101	Pass
0.1137	167	171	102	Pass
0.1149	151	153	101	Pass
0.1161	129	141	109	Pass
0.1174	117	128	109	Pass
0.1186	109	113	103	Pass
0.1198	100	100	100	Pass
0.1210	91	90	98	Pass
0.1222	78	78	100	Pass
0.1234	72	67	93	Pass
0.1246	65	61	93	Pass
0.1258	55	55	100	Pass

0.1270	47	48	102	Pass
0.1282	45	32	71	Pass
0.1294	40	19	47	Pass
0.1306	32	5	15	Pass
0.1318	27	0	0	Pass
0.1330	19	0	0	Pass
0.1342	12	0	0	Pass
0.1354	10	0	0	Pass
0.1366	8	0	0	Pass
0.1378	5	0	0	Pass
0.1390	4	0	0	Pass
0.1402	3	0	0	Pass
0.1415	3	0	0	Pass
0.1427	3	0	0	Pass
0.1439	3	0	0	Pass
0.1451	3	0	0	Pass
0.1463	3	0	0	Pass

Water Quality BMP Flow and Volume for POC #1

On-line facility volume: 0 acre-feet

On-line facility target flow: 0 cfs.

Adjusted for 15 min: 0 cfs.

Off-line facility target flow: 0 cfs.

Adjusted for 15 min: 0 cfs.

LID Report

LID Technique	Used for	Total Volume	Volume	Infiltration	Cumulative
Percent	Water Quality	Percent	Comment	Through	Volume
Volume	Treatment?	Needs	Facility	(ac-ft.)	Infiltration
Infiltrated	Treated	Treatment	(ac-ft)	(ac-ft)	Credit
Vault 1 POC	N	288.29			N
0.00					
Total Volume Infiltrated		288.29	0.00	0.00	
0.00	0.00	0%	No Treat.	Credit	
Compliance with LID Standard 8					
Duration Analysis Result = Failed					

Perln and Implnd Changes

No changes have been made.

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5.2 Water Quality

The project is required to provide Enhanced Runoff Treatment. The Enhanced Menu treats for the following sources of pollution after construction, dissolved metals from vehicle emissions and sediment from typical residential activities. Water quality treatment will be provided by a BioPod Biofilter. These filters have GULD approval from the Washington State Department of Ecology for the following treatment levels/types:

- Basic (TSS)
- Dissolved Metals (Enhanced)
- Phosphorus Treatment

GULD approval documentation is provided at the end of this Section for reference.

This project is required to provide enhanced water quality treatment. The BioPod Biofilter will provide enhanced treatment on its own. No other water quality treatment is required or proposed.

The filter is going to be located downstream of the flow control vault and therefore is sized using the 2-year peak flow out of the proposed flow control vault.

2-year Vault Outflow = 0.035 cfs

See Oldcastle Infrastructure biopod sizing calculations on the following pages.

The following biopod design is provided for reference and informational purposes only.

Core Design takes no responsibility or liability for the biopod design as they were not completed under the direct supervision of Core Design.



Oldcastle Infrastructure
A CRH COMPANY

BioPod™
Downstream of Detention
Sizing Summary

Site Information

Project Name	5 Degrees
Project Location	Shoreline, WA
Design Engineer	Core Design Inc.
OI Engineer	M Thompson
Drainage Area	2.81 ac
Impervious Drainage Area (PGIS)	0.70 ac
Impervious Drainage Area (NPGIS)	1.69 ac
Pervious Area	0.42 ac
% Impervious	85%
Runoff Coefficient	0.27

Flow-Based Calculations

Treatment Release Rate	0.035 cfs
Minimum Surface Area Required*	9.82 sq ft

*Sized at a hydraulic loading rate = 1.6 gpm per square foot of media surface area

Mass Loading Calculations

Mean Annual Rainfall (P)	40 in
Required % Removal	80%
Required % Runoff Capture	91%
Mean Annual Runoff (V _I)	101,808 cf
Assumed Pollutant EMC	80 mg/L
Annual Mass Load	507.30 lb
Detention Pretreatment Credit	50%

Media Surface Area Based on Mass Loading

Mass Removed by Pretreatment	253.65 lb
Mass Load to Filter after Pretreatment	253.65 lb
Required Filter Efficiency	60%
Mass Removal Required	152.19 lb
Mass Load per Square Foot of Media	22 lb/sf
Minimum Surface Area Required	6.92 sq ft

Determine Limiting Sizing Approach

Method to Use (Flow-Based, Mass Load)	Flow-Based
Bypass Method	Internal

Summary

BioPod Model	BPU-46IB
Bypass Method	Internal
Treatment Flow Capacity	0.057 cfs
Media Surface Area Provided	16 sq ft

3/12/2021

\\opisantarosak\shared\Engineering\Projects\11 Western Region\Washington\5 Degrees_WA_BP\1 Design & Takeoffs\BioPod Mass Loading Calculation_5 Degrees_3-5-21 v2.1



July 2018

GENERAL USE LEVEL DESIGNATION FOR BASIC (TSS), DISSOLVED METALS (ENHANCED), AND PHOSPHORUS TREATMENT

For

**Oldcastle Infrastructure, Inc.'s
The BioPod™ Biofilter
(Formerly the TreePod Biofilter)**

Ecology's Decision:

Based on Oldcastle Infrastructure, Inc. application submissions for the The BioPod™ Biofilter (BioPod), Ecology hereby issues the following use level designation:

1. General Use Level Designation (GULD) for Basic, Enhanced, and Phosphorus Treatment:

- Sized at a hydraulic loading rate of 1.6 gallons per minute (gpm) per square foot (sq ft) of media surface area.

2. Ecology approves the BioPod at the hydraulic loading rate listed above, to achieve the maximum water quality design flow rate. The water quality design flow rates are calculated using the following procedures:

- **Western Washington:** For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using the latest version of the Western Washington Hydrology Model or other Ecology-approved continuous runoff model.
- **Eastern Washington:** For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using one of the three methods described in Chapter 2.2.5 of the Stormwater Management Manual for Eastern Washington (SWMMEW) or local manual.
- **Entire State:** For treatment installed downstream of detention, the water quality design flow rate is the full 2-year release rate of the detention facility.

3. The GULD has no expiration date, but may be amended or revoked by Ecology.

Ecology's Conditions of Use:

The BioPod shall comply with these conditions:

- 1) Oldcastle Infrastructure, Inc. shall design, assemble, install, operate, and maintain the BioPod installations in accordance with Oldcastle Infrastructure, Inc.'s applicable manuals and the Ecology Decision.
- 2) BioPod media shall conform to the specifications submitted to and approved by Ecology
- 3) Maintenance: The required inspection/maintenance interval for stormwater treatment devices is often dependent on the efficiency of the device and the degree of pollutant loading from a particular drainage basin. Therefore, Ecology does not endorse or recommend a "one size fits all" maintenance cycle for a particular model/size of manufactured filter treatment device.
 - The BioPod is designed for a target maintenance interval of 1 year. Maintenance includes replacing the mulch, assessing plant health, removal of trash, and raking the top few inches of engineered media.
 - A BioPod system tested at the Lake Union Ship Canal Test Facility in Seattle, WA required maintenance after 1.5 months, or 6.3% of a water year. Monitoring personnel observed similar maintenance issues with other systems evaluated at the Test Facility. The runoff from the Test Facility may be unusual and maintenance requirements of systems installed at the Test Facility may not be indicative of maintenance requirements for all sites.
 - Test results provided to Ecology from a BioPod System evaluated in a lab following New Jersey Department of Environmental Protection Laboratory Protocol for Filtration MTDs have indicated the BioPod System is capable of longer maintenance intervals.
 - Owners/operators must inspect BioPod systems for a minimum of twelve months from the start of post-construction operation to determine site-specific inspection/maintenance schedules and requirements. Owners/operators must conduct inspections monthly during the wet season, and every other month during the dry season. (According to the SWMMWW, the wet season in western Washington is October 1 to April 30. According to the SWMMEW, the wet season in eastern Washington is October 1 to June 30.) After the first year of operation, owners/operators must conduct inspections based on the findings during the first year of inspections.
 - Conduct inspections by qualified personnel, follow manufacturer's guidelines, and use methods capable of determining either a decrease in treated effluent flow rate and/or a decrease in pollutant removal ability.
- 4) Install the BioPod in such a manner that you bypass flows exceeding the maximum operating rate and you will not resuspend captured sediment.

5) Discharges from the BioPod shall not cause or contribute to water quality standards violations in receiving waters.

Applicant: Oldcastle Infrastructure, Inc.

Applicant's Address: 360 Sutton Place
Santa Rosa, CA 95407

Application Documents:

Technical Evaluation Report TreePod™ BioFilter System Performance Certification Project,
Prepared for Oldcastle, Inc., Prepared by Herrera Environmental Consultants, Inc. February 2018

Technical Memorandum: Response to Board of External Reviewers' Comments on the Technical Evaluation Report for the TreePod™ Biofilter System Performance Certification Project,
Oldcastle, Inc. and Herrera Environmental Consultants, Inc., February 2018

Technical Memorandum: Response to Board of External Reviewers' Comments on the Technical Evaluation Report for the TreePod™ Biofilter System Performance Certification Project,
Oldcastle, Inc. and Herrera Environmental Consultants, Inc., January 2018

Application for Pilot Use Level Designation, TreePod™ Biofilter – Stormwater Treatment System, Oldcastle Stormwater Solutions, May 2016

Emerging Stormwater Treatment Technologies Application for Certification: The TreePod™ Biofilter, Oldcastle Stormwater Solutions, April 2016

Applicant's Use Level Request:

- General Use Level Designation as a Basic, Enhanced, and Phosphorus Treatment device in accordance with Ecology's *Stormwater Management Manual for Western Washington*

Applicant's Performance Claims:

Based on results from laboratory and field-testing, the applicant claims the BioPod™ Biofilter operating at a hydraulic loading rate of 153 inches per hour is able to remove:

- 80% of Total Suspended Solids (TSS) for influent concentrations greater than 100 mg/L and achieve a 20 mg/L effluent for influent concentrations less than 100 mg/L.
- 60% dissolved zinc for influent concentrations 0.02 to 0.3 mg/L.
- 30% dissolved copper for influent concentrations 0.005 to 0.02 mg/L.
- 50% or greater total phosphorus for influent concentrations 0.1 to 0.5 mg/L.

Ecology's Recommendations:

Ecology finds that:

- Oldcastle Infrastructure, Inc. has shown Ecology, through laboratory and field testing, that the BioPod™ Biofilter is capable of attaining Ecology's Basic, Total Phosphorus, and Enhanced treatment goals.

Findings of Fact:

Field Testing

1. Herrera Environmental Consultants, Inc. conducted monitoring of the BioPod™ Biofilter at the Lake Union Ship Canal Test Facility in Seattle Washington between November 2016 and April 2018. Herrera collected flow-weight composite samples during 14 separate storm events and peak flow grab samples during 3 separate storm events. The system was sized at an infiltration rate of 153 inches per hour or a hydraulic loading rate of 1.6 gpm/ft².
2. The D₅₀ of the influent PSD ranged from 3 to 292 microns, with an average D₅₀ of 28 microns.
3. Influent TSS concentrations ranged from 17 mg/L to 666 mg/L, with a mean concentration of 98 mg/L. For all samples (influent concentrations above and below 100 mg/L) the bootstrap estimate of the lower 95 percent confidence limit (LCL 95) of the mean TSS reduction was 84% and the bootstrap estimate of the upper 95 percent confidence limit (UCL95) of the mean TSS effluent concentration was 8.2 mg/L.
4. Dissolved copper influent concentrations from the 17 events ranged from 9.0 µg/L to 21.1 µg/L. The 21.1 µg/L data point was reduced to 20.0 µg/L, the upper limit to the TAPE allowed influent concentration range, prior to calculating the pollutant removal. A bootstrap estimate of the LCL95 of the mean dissolved copper reduction was 35%.
5. Dissolved zinc influent concentrations from the 17 events ranged from 26.1 µg/L to 43.3 µg/L. A bootstrap estimate of the LCL95 of the mean dissolved zinc reduction was 71%.
6. Total phosphorus influent concentrations from the 17 events ranged from 0.064 mg/L to 1.56 mg/L. All influent data greater than 0.5 mg/L were reduced to 0.5 mg/L, the upper limit to the TAPE allowed influent concentration range, prior to calculating the pollutant removal. A bootstrap estimate of the LCL95 of the mean total phosphorus reduction was 64%.
7. The system experienced rapid sediment loading and needed to be maintained after 1.5 months. Monitoring personnel observed similar sediment loading issues with other systems evaluated at the Test Facility. The runoff from the Test Facility may not be indicative of maintenance requirements for all sites.

Laboratory Testing

1. Good Harbour Laboratories (GHL) conducted laboratory testing at their site in Mississauga, Ontario in October 2017 following the New Jersey Department of Environmental Protection Laboratory Protocol for Filtration MTDs. The testing evaluated a 4-foot by 6-foot standard biofiltration chamber and inlet contour rack with bypass weir. The test sediment used during the testing was custom blended by GHL using various commercially available silica sands, which had an average d₅₀ of 69 µm. Based on the lab test results:

- a. GHL evaluated removal efficiency over 15 events at a Maximum Treatment Flow Rate (MTFR) of 37.6 gpm, which corresponds to a MTFR to effective filtration treatment area ratio of 1.80 gpm/ft². The system, operating at 100% of the MTFR with an average influent concentration of 201.3 mg/L, had an average removal efficiency of 99 percent.
 - b. GHL evaluated sediment mass loading capacity over an additional 16 events using an influent SSC concentration of 400 mg/L. The first 11 runs were evaluated at 100% of the MTFR. The BioPod began to bypass, so the remaining 5 runs were evaluated at 90% of the MTFR. The total mass of the sediment captured was 245.0 lbs and the cumulative mass removal efficiency was 96.3%.
2. Herrera Environmental Consultants Inc. conducted laboratory testing in September 2014 at the Seattle University Engineering Laboratory. The testing evaluated the flushing characteristics, hydraulic conductivity, and pollutant removal ability of twelve different media blends. Based on this testing, Oldcastle Infrastructure, Inc. selected one media blend, Mix 8, for inclusion in their TAPE evaluation of the BioPod™ Biofilter.
 - a. Herrera evaluated Mix 8 in an 8-inch diameter by 36-inch tall polyvinyl chloride (PVC) column. The column contained 18-inches of Mix 8 on top of 6-inches of pea gravel. The BioPod will normally include a 3-inch mulch layer on top of the media layer; however, this was not included in the laboratory testing.
 - b. Mix 8 has a hydraulic conductivity of 218 inches per hour; however, evaluation of the pollutant removal ability of the media was based on an infiltration rate of 115 inches per hour. The media was tested at 75%, 100%, and 125% of the infiltration rate. Based on the lab test results:
 - The system was evaluated using natural stormwater. The dissolved copper and dissolved zinc concentrations in the natural stormwater were lower than the TAPE influent standards; therefore, the stormwater was spiked with 66.4 mL of 100 mg/L Cu solution and 113.6 mL of 1,000 mg/L Zn solution.
 - The BioPod removed an average of 81% of TSS, with a mean influent concentration of 48.4 mg/L and a mean effluent concentration of 9.8 mg/L.
 - The BioPod removed an average of 94% of dissolved copper, with a mean influent concentration of 10.6 µg/L and a mean effluent concentration of 0.6 µg/L.
 - The BioPod removed an average of 97% of dissolved zinc, with a mean influent concentration of 117 µg/L and a mean effluent concentration of 4 µg/L.
 - The BioPod removed an average of 97% of total phosphorus, with a mean influent concentration of 2.52 mg/L and a mean effluent concentration of 0.066 mg/L. When total phosphorus influent concentrations were capped at the TAPE upper limit of 0.5 mg/L, calculations showed an average removal of 87%.

Other BioPod Related Issues to be Addressed By the Company:

1. Conduct hydraulic testing to obtain information about maintenance requirements on a site with runoff that is more typical of the Pacific Northwest.

Technology Description:

Download at

<https://oldcastleprecast.com/stormwater/bioretention-biofiltration-applications/bioretention-biofiltration-solutions/>

Contact Information:

Applicant:

Chris Demarest
Oldcastle Infrastructure, Inc.
(925) 667-7100
Chris.demarest@oldcastle.com

Applicant website:

<https://oldcastleprecast.com/stormwater/>

Ecology web link: <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies>

Ecology:

Douglas C. Howie, P.E.
Department of Ecology
Water Quality Program
(360) 407-6444
douglas.howie@ecy.wa.gov

Revision History

Date	Revision
March 2018	GULD granted for Basic Treatment
March 2018	Provisional GULD granted for Enhanced and Phosphorus Treatment
June 2016	PULD Granted
April 2018	GULD for Basic and Provisional GULD for Enhanced and Phosphorus granted, changed name to BioPod from TreePod
July 2018	GULD for Enhanced and Phosphorus granted

5.3 Source Control

The subject multi-family development does not fall under the category of urban stormwater pollutant sources as defined at the beginning of Chapter 2 of Volume IV within the 2014 DOE Manual therefore, no source control is required for the developed site. Minimum Requirement #2 addresses BMPs for construction sites.

5.4 Conveyance System Analysis and Design

The tight-lined storm drainage system tributary to the vault and along the frontage roads have been designed per requirements in the 2016 King County Surface Design Manual (2016 KCSWDM). The 2016 KCSWDM is being used to design the conveyance system per direction from City of Shoreline staff.

Per Section 1.2.4.1 of the 2016 KCSWDM, new pipe systems shall be designed with sufficient capacity to convey and contain (at a minimum) the 25-year peak flow. Pipe systems may overtop for runoff events that exceed the 25-year design capacity, provided the overflow from a 100-year runoff event does not create or aggravate a severe flooding problem or severe erosion problem. A backwater analysis has been completed to ensure this project's conveyance system meets these requirements.

The rational method was used to generate developed flow rates for the 25-year and 100-year storms. The flows generated from the rational method spreadsheets for the relevant storm events were input into backwater analysis spreadsheets to confirm adequate sizing of the conveyance system. See spreadsheets on the following pages.

Since the developed basins are small, conservatively, four consolidated areas; the CB 108 basin area, the CB's 101 and 102 basin area, the area tributary to the N 148th Street conveyance system, and the area tributary to the N 147th Street conveyance system, have been assumed to enter the most upstream catch basins for each pipe within these basins. As well, the flow rate tributary to CB 6, from the onsite stormwater vault, is equal to the release rates of the 25-year and 50-year storms. The release rates from the vault are as follows.

- 25-year release = 0.12 cfs
- 100-year release = 0.19 cfs

An average C value was calculated for each basin. The average C value for each basin is as follows;

- CB 108 Avg C = $(0.09 \times 0.15 + 0.18 \times 0.20 + 1.53 \times 0.90) / 1.80 = 0.79$ (1.80 AC @ 85% Impervious, 0.09 AC Forest)
- CB 101 and CB 102 Avg C = $(0.09 \times 0.20 + 0.49 \times 0.90) / 0.58 = 0.79$ (0.58 AC @ 85% Impervious)
- N 148th Street Avg C = $(0.10 \times 0.20 + 0.47 \times 0.90) / 0.57 = 0.78$ (0.57 AC @ 0.47 AC Impervious)
- N 147th Street Avg C = $(0.04 \times 0.20 + 0.21 \times 0.90) / 0.25 = 0.79$ (0.25 AC @ 0.21 AC Impervious)

Isopluvial maps from the 2016 KCSWDM were used to determine the precipitation values for both the 25-year and 100-year storms to be used with the rational method. These maps are provided on the following pages. The precipitation rates are provided below:

- 25-year 24-hour Precipitation (in) = 2.71 inches
- 100-year 24-hour Precipitation (in) = 3.23 inches

The tailwater elevations within the vault were derived from the WWHM screenshot and the Vault Overflow Analysis within Section 5.1.2 of this Report. The 25-year and 100-year tailwater elevations are provided below.

- 25-year Tailwater Elev. = elevation 375.00 (outlet invert) + 10.00 feet (stage) = 385.00
- 100-year Tailwater Elev. = 385.80

The tailwater elevations within the frontage roads were assumed to be equal to the crown of the pipe at the connection to the existing conveyance system. The 25-year and 100-year tailwater elevations are provided below.

- N 148th Street 25-year/100-year Tailwater Elev. (Pipe Crown at CB 2) = 365.34
- N 147th Street 25-year/100-year Tailwater Elev. (Pipe Crown at Exist CB) = 394.07

During both the 25-year storm and 100-year storm, all headwater elevations remained below the rim elevations. The conveyance system therefore, meets the requirements of the 2016 KCSWDM and City of Shoreline.

FIGURE 3.2.1.C 25-YEAR 24-HOUR ISOPLUVIALS

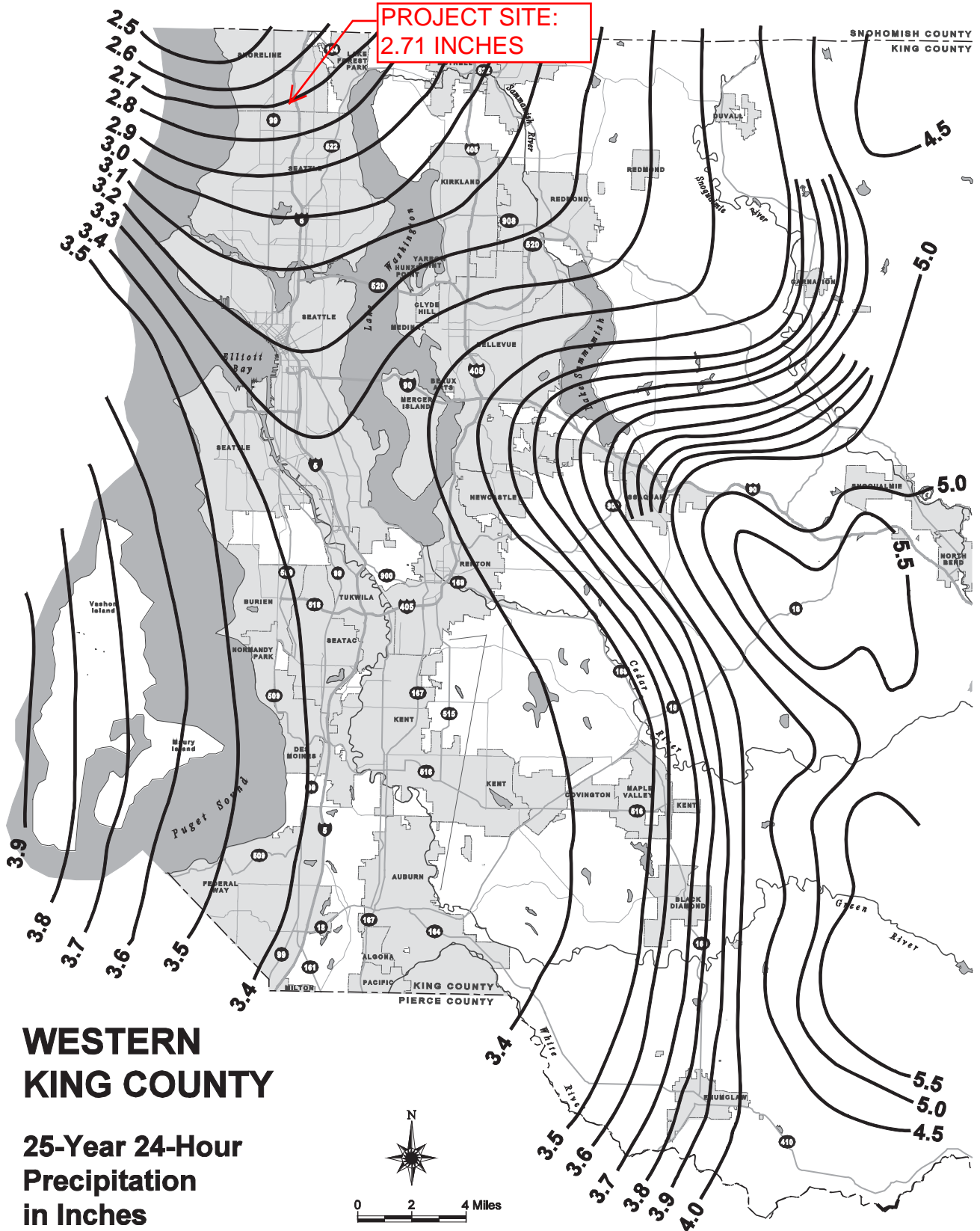
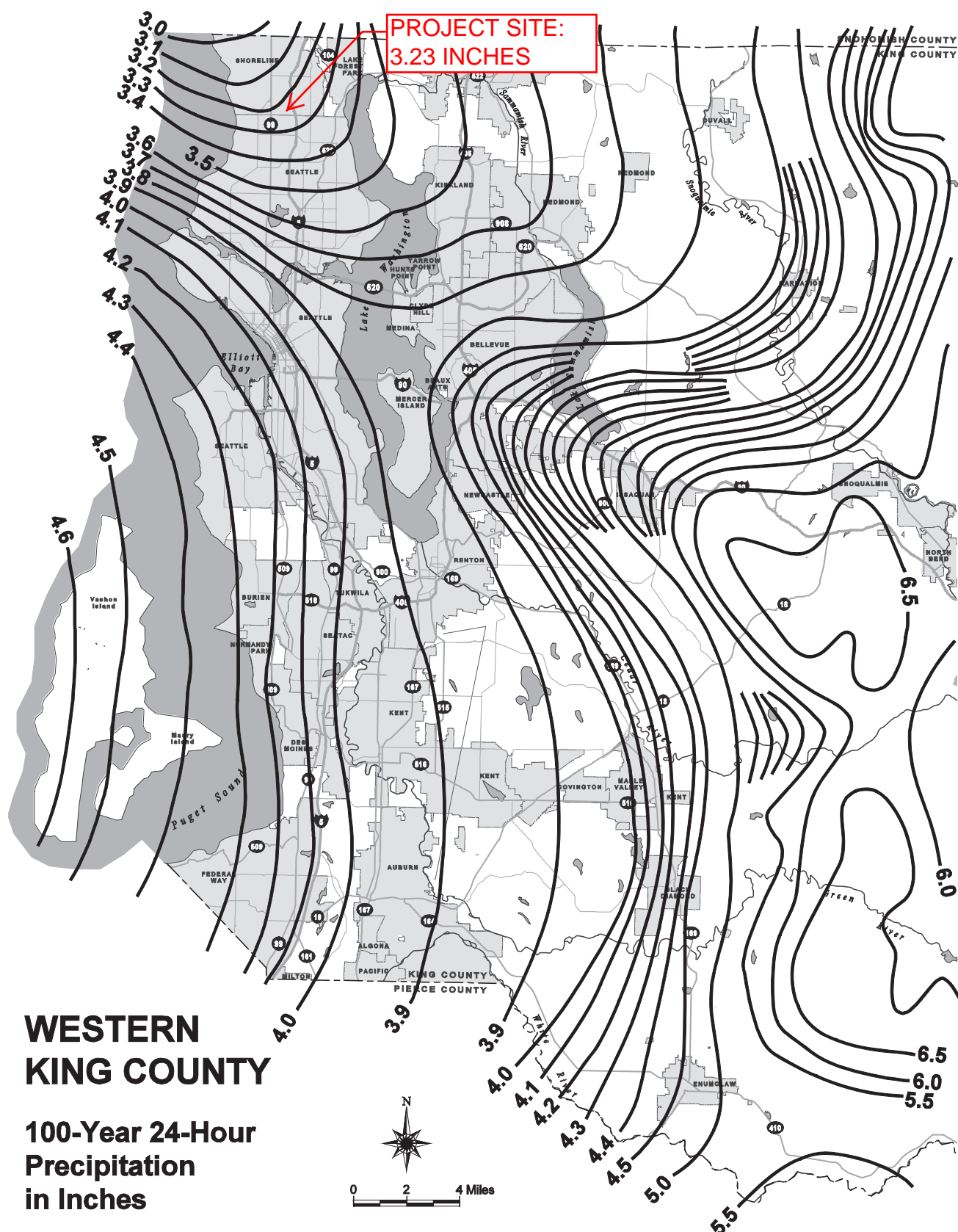


FIGURE 3.2.1.D 100-YEAR 24-HOUR ISOPLUVIALS





RATIONAL METHOD CONVEYANCE SYSTEM DESIGN									LOCATION: KING COUNTY					P _R (24-HR RAINFALL): 2.71 INCHES			
PROJECT NAME: 5 DEGREES				PROJECT NUMBER: 19133					PREPARED BY: SMS					DESIGN STORM: 25 YEAR			
LOCATION		SUBBASIN AREA (AC)	"C"	(A * C)	SUM OF (A * C)	T _c (MIN)	I _R (IN/HR)	Q _R (CFS)	MANNING'S "n"	PIPE SIZE (IN)	PIPE SLOPE (%)	PIPE LENGTH (FT)	ACTUAL VELOCITY (V _R) (FT/SEC)	TRAVEL TIME (MIN)	PIPE CAPACITY SUMMARY		
FROM	TO														Q(FULL) (CFS)	V(FULL) (FT/SEC)	Q _R /Q(FULL) (%)
17	EXCB	0.250	0.79	0.198	0.198	6.30	2.18	0.430	0.012	12	2.280	40	4.19	0.16	5.828	7.42	7.4%
15	13	0.570	0.78	0.445	0.445	6.30	2.18	0.969	0.012	12	0.610	107	3.40	0.53	3.015	3.84	32.1%
13	12			0.000	0.445	6.83	2.07	0.920	0.012	12	5.290	265	7.12	0.62	8.877	11.30	10.4%
12	11			0.000	0.445	7.45	1.95	0.869	0.012	12	7.510	39	7.95	0.08	10.577	13.47	8.2%
11	9			0.000	0.445	7.53	1.94	0.863	0.012	12	2.860	91	5.53	0.27	6.527	8.31	13.2%
9	6			0.000	0.445	7.80	1.90	0.843	0.012	12	0.600	85	3.25	0.44	2.990	3.81	28.2%
6	4	25-YR VLT OUTFLOW=0.12 CFS		0.000	0.445	8.24	1.83	0.934	0.012	12	0.610	72	3.34	0.36	3.015	3.84	31.0%
4	3			0.000	0.445	8.60	1.78	0.934	0.012	12	0.610	178	3.34	0.89	3.015	3.84	31.0%
3	2			0.000	0.445	9.48	1.67	0.934	0.012	12	3.370	195	6.00	0.54	7.085	9.02	13.2%
108	107	1.800	0.79	1.422	1.422	6.30	2.18	3.099	0.012	12	1.020	24	5.51	0.07	3.898	4.96	79.5%
107	106			0.000	1.422	6.37	2.16	3.076	0.012	12	0.500	211	3.47	1.01	2.729	3.47	112.7%
106	105			0.000	1.422	7.38	1.97	2.795	0.012	15	0.500	211	4.15	0.85	4.948	4.03	56.5%
105	104			0.000	1.422	8.23	1.83	2.605	0.012	15	0.520	25	4.11	0.10	5.046	4.11	51.6%
104	103			0.000	1.422	8.33	1.82	2.584	0.012	15	1.360	103	5.79	0.30	8.161	6.65	31.7%
103	VAULT			0.000	1.422	8.62	1.78	2.526	0.012	15	2.000	11	6.61	0.03	9.897	8.06	25.5%
102	VAULT	0.580	0.79	0.458	0.458	6.30	2.18	0.998	0.012	12	0.630	51	3.45	0.25	3.064	3.90	32.6%
101	VAULT	0.580	0.79	0.458	0.458	6.30	2.18	0.998	0.012	12	0.540	48	3.25	0.25	2.836	3.61	35.2%

BACKWATER CALCULATIONS

PROJECT NAME: 5 DEGREES																							
PROJECT NUMBER: 19133																							
PREPARED BY: SMS																							
DESIGN STORM: 25 YEAR																							
PIPE SEGMENT		Q	PIPE LENGTH	PIPE SIZE	MANNING'S "n" VALUE	OUTLET ELEVATION	INLET ELEVATION	PIPE AREA	FULL VELOCITY	VELOCITY HEAD	TAILWATER ELEVATION	FRICTION LOSS	ENTRANCE HGL ELEVATION	ENTRANCE HEAD LOSS	EXIT HEAD LOSS	OUTLET CONTROL ELEVATION	INLET CONTROL ELEVATION	APPROACH VELOCITY HEAD	BEND HEAD LOSS	JUNCTION HEAD LOSS	HEADWATER ELEVATION	RIM ELEVATION	FREEBOARD
FROM	TO																						
CB	CB	(CFS)	(FT)	(IN)		(FT)	(FT)	(SQ FT)	(FT/SEC)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)
VAULT	101	1.00	48	12	0.012	383.13	383.39	0.79	1.27	0.03	385.00	0.03	385.03	0.01	0.03	385.07	384.39	0.00	0.00	0.00	385.07	386.89	1.82
VAULT	102	1.00	51	12	0.012	382.78	383.10	0.79	1.27	0.03	385.00	0.03	385.03	0.01	0.03	385.07	384.10	0.00	0.00	0.00	385.07	386.39	1.32
VAULT	103	2.53	11	15	0.012	383.73	383.95	1.23	2.06	0.07	385.00	0.01	385.20	0.03	0.07	385.30	385.20	0.07	0.01	0.00	385.24	393.27	8.03
103	104	2.58	103	15	0.012	383.95	384.47	1.23	2.11	0.07	385.24	0.14	385.72	0.03	0.07	385.82	385.72	0.07	0.08	0.00	385.84	399.76	13.92
104	105	2.60	25	15	0.012	384.47	384.60	1.23	2.12	0.07	385.84	0.03	385.87	0.04	0.07	385.97	385.85	0.08	0.00	0.00	385.90	400.25	14.35
105	106	2.80	211	15	0.012	384.60	385.66	1.23	2.28	0.08	385.90	0.33	386.91	0.04	0.08	387.03	386.91	0.24	0.00	0.00	386.79	398.88	12.09
106	107	3.08	211	12	0.012	385.91	386.97	0.79	3.92	0.24	386.79	1.33	388.12	0.12	0.24	388.48	388.25	0.24	0.00	0.00	388.24	391.26	3.02
107	108	3.10	24	12	0.012	386.97	387.21	0.79	3.95	0.24	388.24	0.15	388.39	0.12	0.24	388.75	388.49	0.00	0.00	0.00	388.76	390.68	1.92
2	3	0.93	195	12	0.012	364.34	370.91	0.79	1.19	0.02	365.34	0.11	371.91	0.01	0.02	371.94	371.91	0.02	0.00	0.00	371.92	377.20	5.28
3	4	0.93	178	12	0.012	370.91	371.99	0.79	1.19	0.02	371.92	0.10	372.99	0.01	0.02	373.02	372.99	0.02	0.00	0.00	373.00	384.43	11.43
4	6	0.93	72	12	0.012	371.99	372.43	0.79	1.19	0.02	373.00	0.04	373.43	0.01	0.02	373.46	373.43	0.02	0.00	0.00	373.45	385.90	12.45
6	9	0.84	85	12	0.012	382.17	382.68	0.79	1.07	0.02	373.45	0.04	383.68	0.01	0.02	383.71	383.68	0.02	0.00	0.00	383.69	385.88	2.19
9	11	0.86	91	12	0.012	382.68	385.28	0.79	1.10	0.02	383.69	0.05	386.28	0.01	0.02	386.31	386.28	0.02	0.02	0.00	386.31	388.48	2.17
11	12	0.87	39	12	0.012	385.28	388.21	0.79	1.11	0.02	386.31	0.02	389.21	0.01	0.02	389.24	389.21	0.02	0.00	0.00	389.22	391.31	2.09
12	13	0.92	265	12	0.012	388.21	402.22	0.79	1.17	0.02	389.22	0.15	403.22	0.01	0.02	403.25	403.22	0.02	0.03	0.00	403.26	407.25	3.99
13	15	0.97	107	12	0.012	402.22	402.87	0.79	1.23	0.02	403.26	0.07	403.87	0.01	0.02	403.91	403.87	0.00	0.00	0.00	403.91	406.07	2.16
EXCB	17	0.43	40	12	0.012	393.07	393.98	0.79	0.55	0.00	394.07	0.00	394.98	0.00	0.00	394.99	394.98	0.00	0.01	0.00	394.99	397.18	2.19

RATIONAL METHOD CONVEYANCE SYSTEM DESIGN									LOCATION: KING COUNTY					P _R (24-HR RAINFALL): 3.23 INCHES			
PROJECT NAME: 5 DEGREES				PROJECT NUMBER: 19133					PREPARED BY: SMS					DESIGN STORM: 100 YEAR			
LOCATION		SUBBASIN AREA (AC)	"C"	(A * C)	SUM OF (A * C)	T _c (MIN)	I _R (IN/HR)	Q _R (CFS)	MANNING'S "n"	PIPE SIZE (IN)	PIPE SLOPE (%)	PIPE LENGTH (FT)	ACTUAL VELOCITY (V _R) (FT/SEC)	TRAVEL TIME (MIN)	PIPE CAPACITY SUMMARY		
															Q(FULL) (CFS)	V(FULL) (FT/SEC)	Q _R /Q(FULL) (%)
17	EXCB	0.250	0.79	0.198	0.198	6.30	2.64	0.522	0.012	12	2.280	40	4.38	0.15	5.828	7.42	9.0%
15	13	0.570	0.78	0.445	0.445	6.30	2.64	1.176	0.012	12	0.610	107	3.57	0.50	3.015	3.84	39.0%
13	12			0.000	0.445	6.80	2.52	1.120	0.012	12	5.290	265	7.52	0.59	8.877	11.30	12.6%
12	11			0.000	0.445	7.39	2.39	1.063	0.012	12	7.510	39	8.48	0.08	10.577	13.47	10.1%
11	9			0.000	0.445	7.46	2.38	1.056	0.012	12	2.860	91	6.03	0.25	6.527	8.31	16.2%
9	6			0.000	0.445	7.72	2.33	1.035	0.012	12	0.600	85	3.43	0.41	2.990	3.81	34.6%
6	4	100-YR VLT OUTFLOW=0.19 CFS		0.000	0.445	8.13	2.25	1.191	0.012	12	0.610	72	3.57	0.34	3.015	3.84	39.5%
4	3			0.000	0.445	8.47	2.19	1.191	0.012	12	0.610	178	3.57	0.83	3.015	3.84	39.5%
3	2			0.000	0.445	9.30	2.07	1.191	0.012	12	3.370	195	6.54	0.50	7.085	9.02	16.8%
108	107	1.800	0.79	1.422	1.422	6.30	2.64	3.760	0.012	12	1.020	24	5.66	0.07	3.898	4.96	96.5%
107	106			0.000	1.422	6.37	2.63	3.734	0.012	12	0.500	211	3.47	1.01	2.729	3.47	136.8%
106	105			0.000	1.422	7.38	2.39	3.403	0.012	15	0.500	211	4.35	0.81	4.948	4.03	68.8%
105	104			0.000	1.422	8.19	2.24	3.187	0.012	15	0.520	25	4.34	0.09	5.046	4.11	63.2%
104	103			0.000	1.422	8.28	2.23	3.164	0.012	15	1.360	103	6.18	0.28	8.161	6.65	38.8%
103	VAULT			0.000	1.422	8.56	2.18	3.100	0.012	15	2.000	11	7.02	0.03	9.897	8.06	31.3%
102	VAULT	0.580	0.79	0.458	0.458	6.30	2.64	1.211	0.012	12	0.630	51	3.63	0.23	3.064	3.90	39.5%
101	VAULT	0.580	0.79	0.458	0.458	6.30	2.64	1.211	0.012	12	0.540	48	3.45	0.23	2.836	3.61	42.7%

BACKWATER CALCULATIONS																							
PROJECT NAME:				5 DEGREES				PREPARED BY:				SMS											
PROJECT NUMBER:				19133				DESIGN STORM:				100 YEAR											
PIPE SEGMENT		Q (CFS)	PIPE LENGTH (FT)	PIPE SIZE (IN)	MANNING'S "n" VALUE	OUTLET ELEVATION (FT)	INLET ELEVATION (FT)	PIPE AREA (SQ FT)	FULL VELOCITY (FT/SEC)	VELOCITY HEAD (FT)	TAILWATER ELEVATION (FT)	FRICTION LOSS (FT)	ENTRANCE HGL ELEVATION (FT)	ENTRANCE HEAD LOSS (FT)	EXIT HEAD LOSS (FT)	OUTLET CONTROL ELEVATION (FT)	INLET CONTROL ELEVATION (FT)	APPROACH VELOCITY HEAD (FT)	BEND HEAD LOSS (FT)	JUNCTION HEAD LOSS (FT)	HEADWATER ELEVATION (FT)	RIM ELEVATION (FT)	FREEBOARD (FT)
FROM	TO																						
CB	CB																						
VAULT	101	1.21	48	12	0.012	383.13	383.39	0.79	1.54	0.04	385.80	0.05	385.85	0.02	0.04	385.90	384.39	0.00	0.00	0.00	385.90	386.89	0.99
VAULT	102	1.21	51	12	0.012	382.78	383.10	0.79	1.54	0.04	385.80	0.05	385.85	0.02	0.04	385.91	384.10	0.00	0.00	0.00	385.91	386.39	0.48
VAULT	103	3.10	11	15	0.012	383.73	383.95	1.23	2.53	0.10	385.80	0.02	385.82	0.05	0.10	385.97	385.20	0.10	0.01	0.00	385.88	393.27	7.39
103	104	3.16	103	15	0.012	383.95	384.47	1.23	2.58	0.10	385.88	0.21	386.09	0.05	0.10	386.24	385.72	0.10	0.12	0.00	386.26	399.76	13.50
104	105	3.19	25	15	0.012	384.47	384.60	1.23	2.60	0.10	386.26	0.05	386.31	0.05	0.10	386.47	385.85	0.12	0.00	0.00	386.35	400.25	13.90
105	106	3.40	211	15	0.012	384.60	385.66	1.23	2.77	0.12	386.35	0.49	386.91	0.06	0.12	387.09	386.91	0.35	0.00	0.00	386.74	398.88	12.14
106	107	3.73	211	12	0.012	385.91	386.97	0.79	4.75	0.35	386.74	1.96	388.70	0.18	0.35	389.22	388.54	0.36	0.01	0.00	388.87	391.26	2.39
107	108	3.76	24	12	0.012	386.97	387.21	0.79	4.79	0.36	388.87	0.22	389.09	0.18	0.36	389.63	388.79	0.00	0.01	0.00	389.64	390.68	1.04
2	3	1.19	195	12	0.012	364.34	370.91	0.79	1.52	0.04	365.34	0.18	371.91	0.02	0.04	371.96	371.91	0.04	0.00	0.00	371.93	377.20	5.27
3	4	1.19	178	12	0.012	370.91	371.99	0.79	1.52	0.04	371.93	0.17	372.99	0.02	0.04	373.04	372.99	0.04	0.00	0.00	373.01	384.43	11.42
4	6	1.19	72	12	0.012	371.99	372.43	0.79	1.52	0.04	373.01	0.07	373.43	0.02	0.04	373.48	373.43	0.03	0.00	0.00	373.46	385.90	12.44
6	9	1.03	85	12	0.012	382.17	382.68	0.79	1.32	0.03	373.46	0.06	383.68	0.01	0.03	383.72	383.68	0.03	0.00	0.00	383.69	385.88	2.19
9	11	1.06	91	12	0.012	382.68	385.28	0.79	1.35	0.03	383.69	0.07	386.28	0.01	0.03	386.32	386.28	0.03	0.04	0.00	386.33	388.48	2.15
11	12	1.06	39	12	0.012	385.28	388.21	0.79	1.35	0.03	386.33	0.03	389.21	0.01	0.03	389.25	389.21	0.03	0.00	0.00	389.22	391.31	2.09
12	13	1.12	265	12	0.012	388.21	402.22	0.79	1.43	0.03	389.22	0.22	403.22	0.02	0.03	403.27	403.22	0.03	0.04	0.00	403.27	407.25	3.98
13	15	1.18	107	12	0.012	402.22	402.87	0.79	1.50	0.03	403.27	0.10	403.87	0.02	0.03	403.92	403.87	0.00	0.00	0.00	403.92	406.07	2.15
EXCB	17	0.52	40	12	0.012	393.07	393.98	0.79	0.66	0.01	394.07	0.01	394.98	0.00	0.01	394.99	394.98	0.00	0.01	0.00	395.00	397.18	2.18

6. Special Reports and Studies

The following reports and assessments are provided for reference and informational purposes only. Core Design takes no responsibility or liability for these reports, assessments, or designs as they were not completed under the direct supervision of Core Design.

- Geotechnical Evaluation Report, June 5, 2020 (See Appendix A)
Prepared By: Terra Associates, Inc.
12220 113th Ave. NE, Ste. 130
Kirkland, WA 98034
(425) 821-7777
- Geotechnical Report, December 13, 2019 (See Appendix B)
Prepared By: Terra Associates, Inc.
12220 113th Ave. NE, Ste. 130
Kirkland, WA 98034
(425) 821-7777

7. Other Permits

The following other permits will be associated with this project:

- NPDES Permit
- Building Permits
- Demolition Permits

8. Figures



Figure 1: Vicinity Map

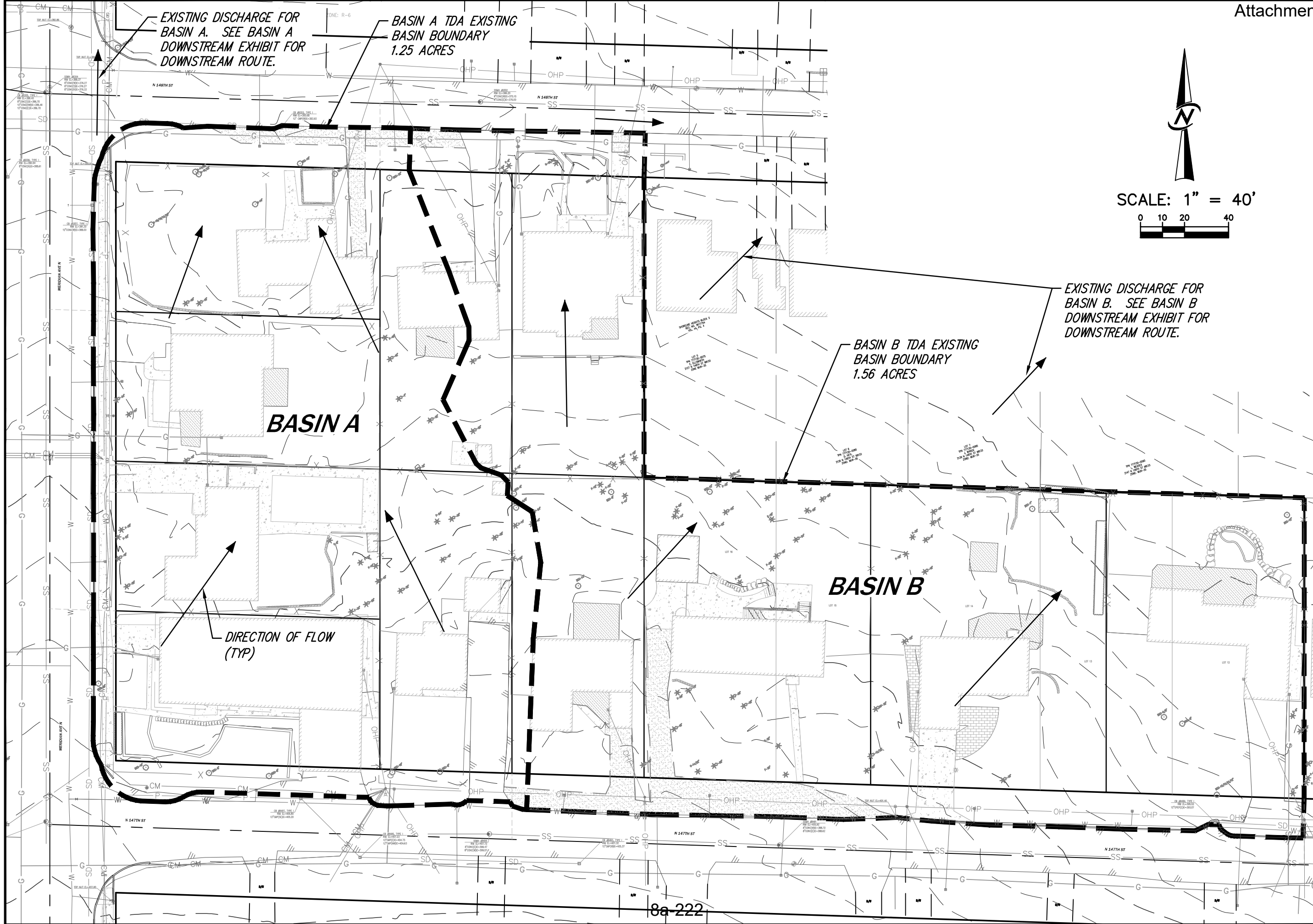
Figure 2. Site Assessment Exhibits

3/19/2021 8:37 AM J:\2019\19133\ENGINEERING\EXHIBITS\SOR\EX & DEV\EXHIBITSDWG

SW1/4 OF THE SW1/4, SEC. 17, TWP. 26N., RGE. 4 E., W.M.

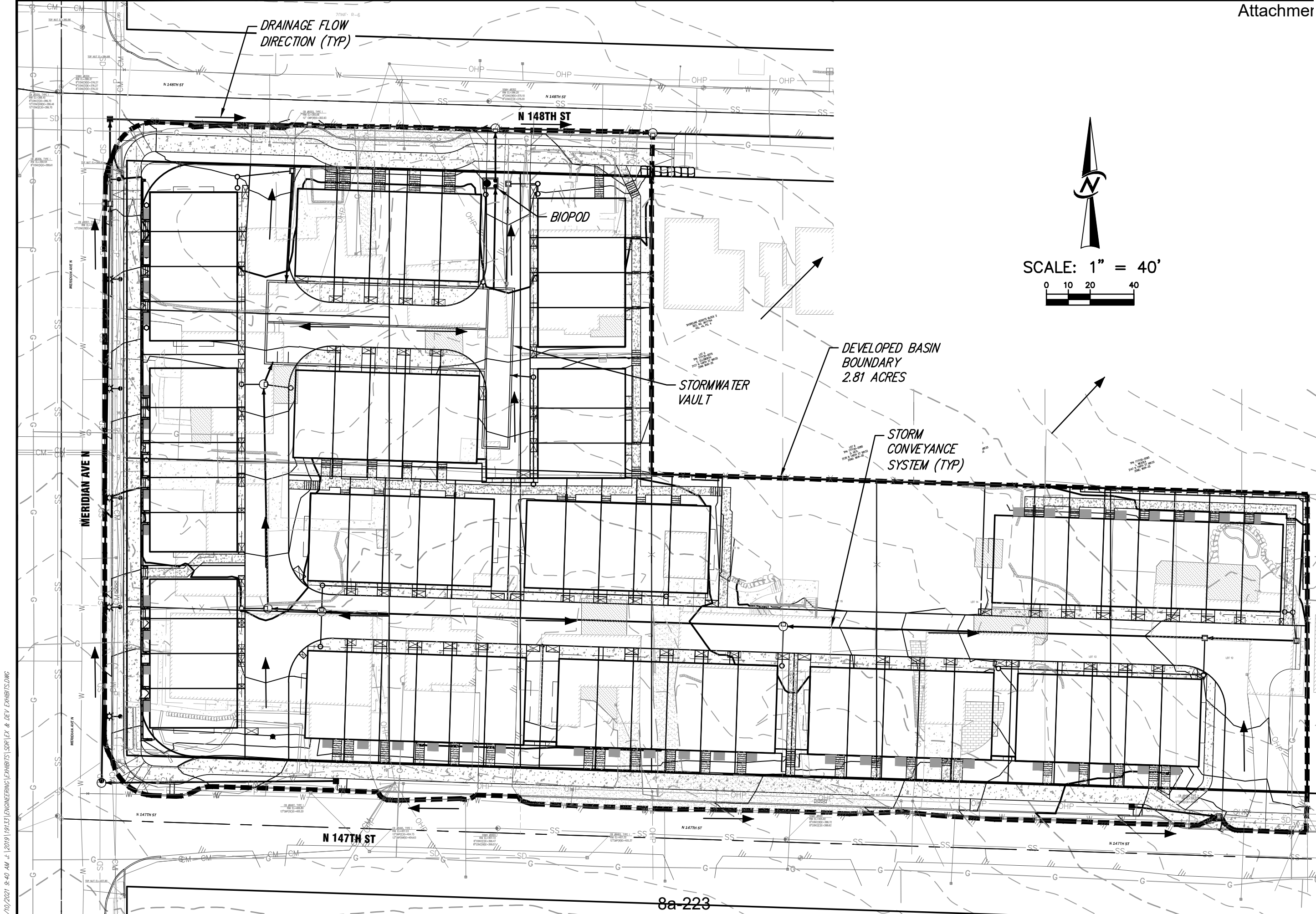
EXHIBIT 5g

Attachment



8a-222

REVISIONS	
NO.	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING	
CORE DESIGN	
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425-885-7877	
EXISTING CONDITIONS EXHIBIT 5 DEGREES	
PULTE HOMES OF WASHINGTON, INC. 3535 FACTORY BLVD SE, #800 BELLEVUE, WA 98006	
DATE	MARCH 2021
DESIGNED	MATTHEW J. STEFANSON, E.I.T.
DRAWN	MATTHEW J. STEFANSON, E.I.T.
APPROVED	GWA R. BROOKS, P.E.
	GWA R. BROOKS, P.E.
	PROJECT MANAGER
SHEET	OF
1	1
PROJECT NUMBER 19133	

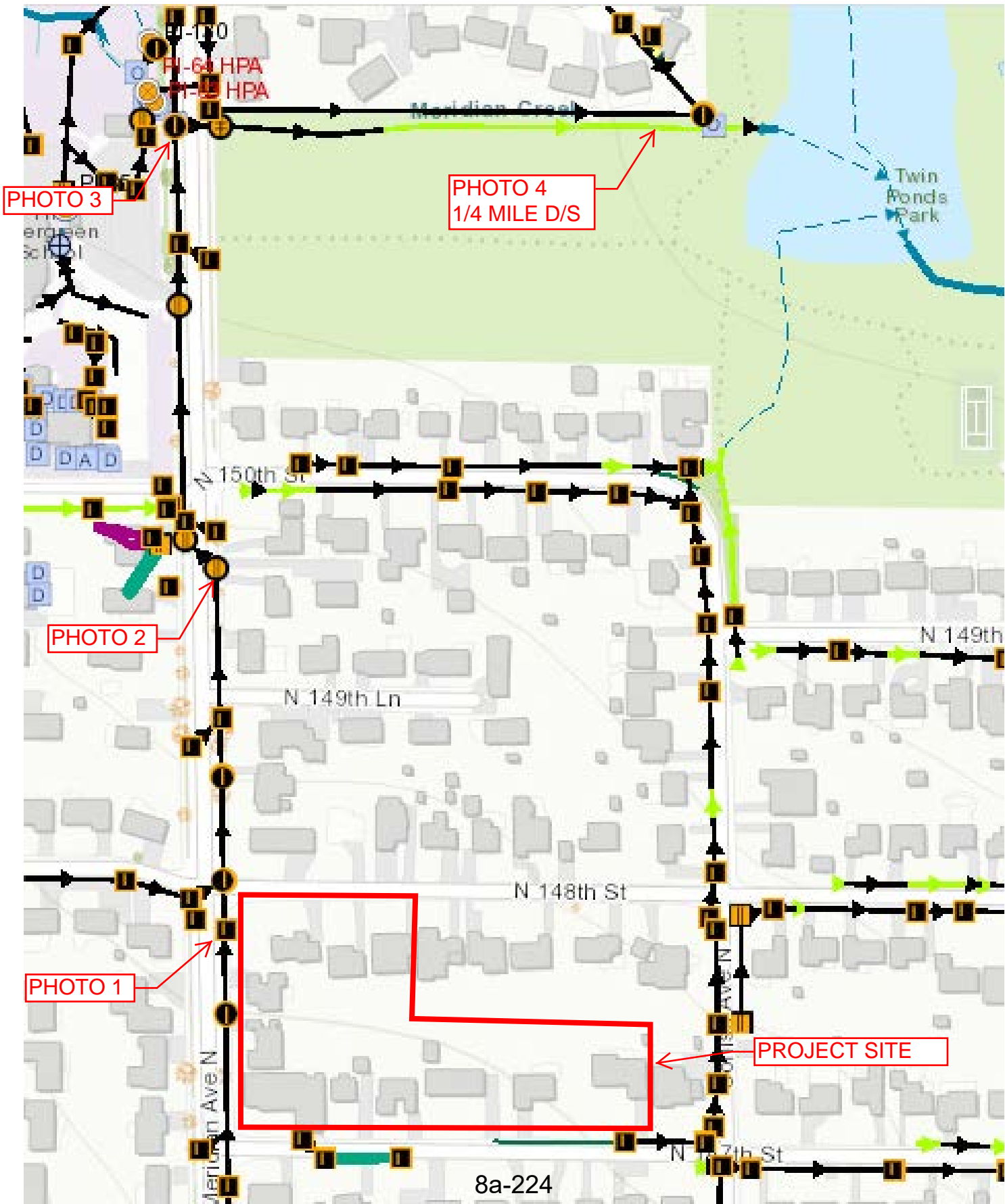


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8a-223

REVISIONS	
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CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING	
CORE DESIGN	
12100 NE 195th St. Suite 300 Bothell, Washington 98011 425-885-7877	
DEVELOPED CONDITIONS EXHIBIT 5 DEGREES	
PULTE HOMES OF WASHINGTON, INC. 3535 FACTORY BLVD SE, #800 BELLEVUE, WA 98006	
DATE	MARCH 2021
DESIGNED	MATTHEW J. STEFANSON, E.I.T.
DRAWN	MATTHEW J. STEFANSON, E.I.T.
APPROVED	GWA R. BROOKS, P.E.
	GWA R. BROOKS, P.E.
	PROJECT MANAGER
SHEET	OF
1	1
PROJECT NUMBER 19133	

Basin A TDA Downstream Exhibit



Basin B TDA Downstream Exhibit

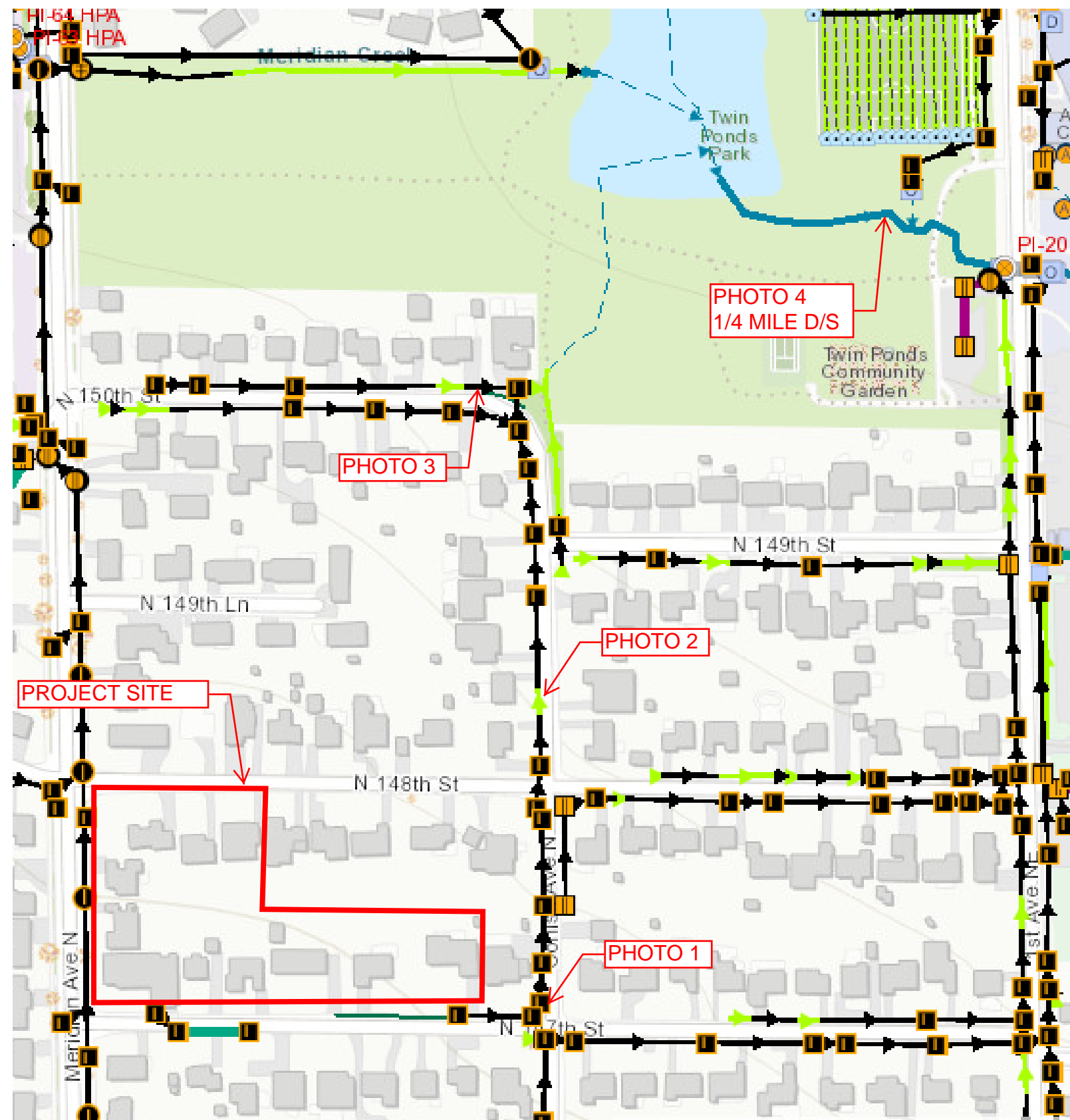
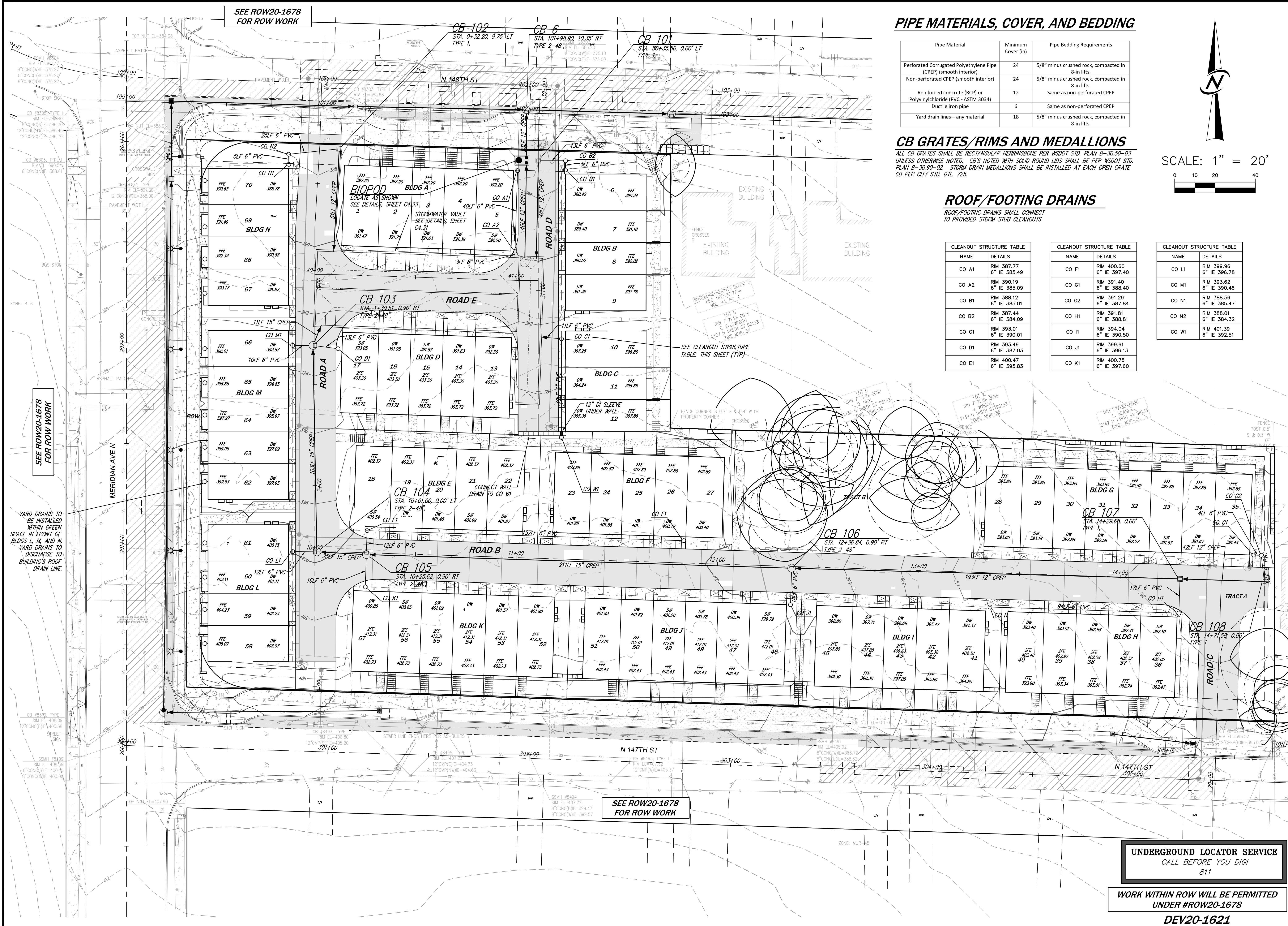


Figure 3. Site Development



PIPE MATERIALS, COVER, AND BEDDING

Pipe Material	Minimum Cover (in)	Pipe Bedding Requirements
Perforated Corrugated Polyethylene Pipe (CPEP) (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Non-perforated CPEP (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Reinforced concrete (RCP) or Polyvinylchloride (PVC - ASTM 3034)	12	Same as non-perforated CPEP
Ductile iron pipe	6	Same as non-perforated CPEP
Yard drain lines - any material	18	5/8" minus crushed rock, compacted in 8-in lifts.

CB GRATES/RIMS AND MEDALLIONS

ALL CB GRATES SHALL BE RECTANGULAR HERRINGBONE PER WSDOT STD. PLAN B-30.50-03 UNLESS OTHERWISE NOTED. CB'S NOTED WITH SOLID ROUND LIDS SHALL BE PER WSDOT STD. PLAN B-30.90-02. STORM DRAIN MEDALLIONS SHALL BE INSTALLED AT EACH OPEN GRATE CB PER CITY STD. DTL. 723.

ROOF/FOOTING DRAINS

ROOF/FOOTING DRAINS SHALL CONNECT TO PROVIDED STORM STUB CLEANOUTS

NAME	DETAILS
CO A1	RIM 387.77 6" IE 385.49
CO A2	RIM 390.19 6" IE 385.09
CO B1	RIM 388.12 6" IE 385.01
CO B2	RIM 387.44 6" IE 384.09
CO C1	RIM 393.01 6" IE 390.01
CO D1	RIM 393.49 6" IE 387.03
CO E1	RIM 400.47 6" IE 395.83

NAME	DETAILS
CO F1	RIM 400.60 6" IE 397.40
CO G1	RIM 391.40 6" IE 388.40
CO G2	RIM 388.12 6" IE 387.84
CO H1	RIM 391.81 6" IE 388.81
CO I1	RIM 394.04 6" IE 390.50
CO J1	RIM 399.61 6" IE 396.13
CO K1	RIM 400.75 6" IE 397.60

NAME	DETAILS
CO L1	RIM 399.96 6" IE 396.78
CO M1	RIM 393.62 6" IE 390.46
CO N1	RIM 388.56 6" IE 385.47
CO N2	RIM 388.01 6" IE 384.32
CO W1	RIM 401.39 6" IE 392.51



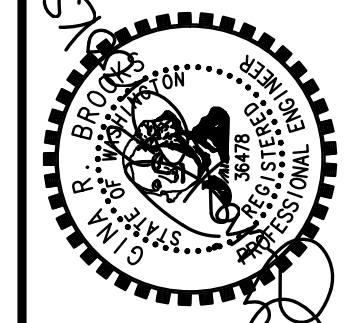
STORM DRAINAGE PLAN
5 DEGREES

PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #400
BELLEVUE, WA 98006

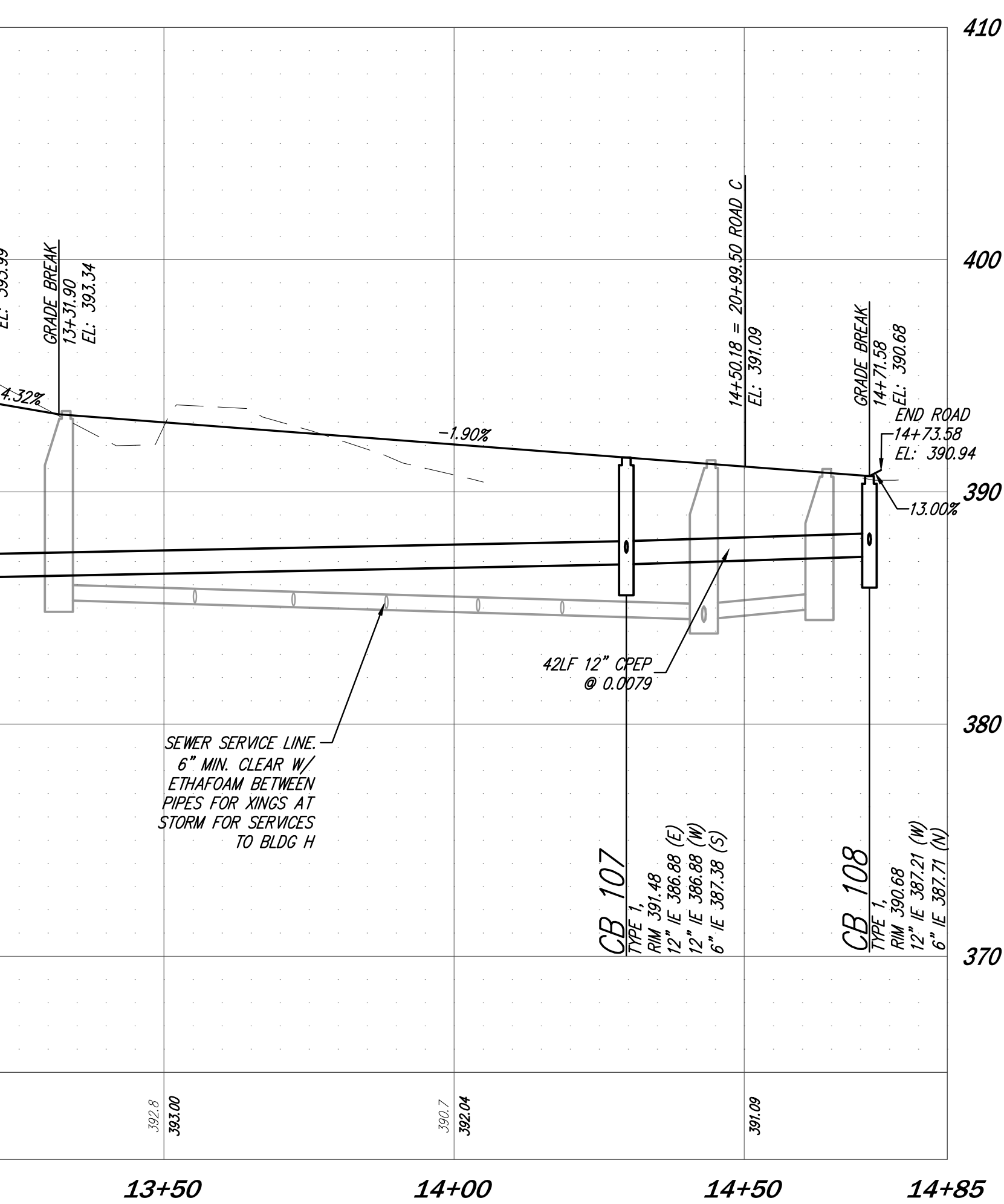
DATE	SEE STAMP DATE
DESIGNED	GINA R. BROOKS, P.E.
DRAWN	MARY MOORE
APPROVED	GINA R. BROOKS, P.E.
PROJECT MANAGER	GINA R. BROOKS, P.E.
SHEET	C4.01
PROJECT NUMBER	19133

CORE DESIGN
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

12100 NE 19th St, Suite 300 Bothell, Washington 98011 425.885.7877



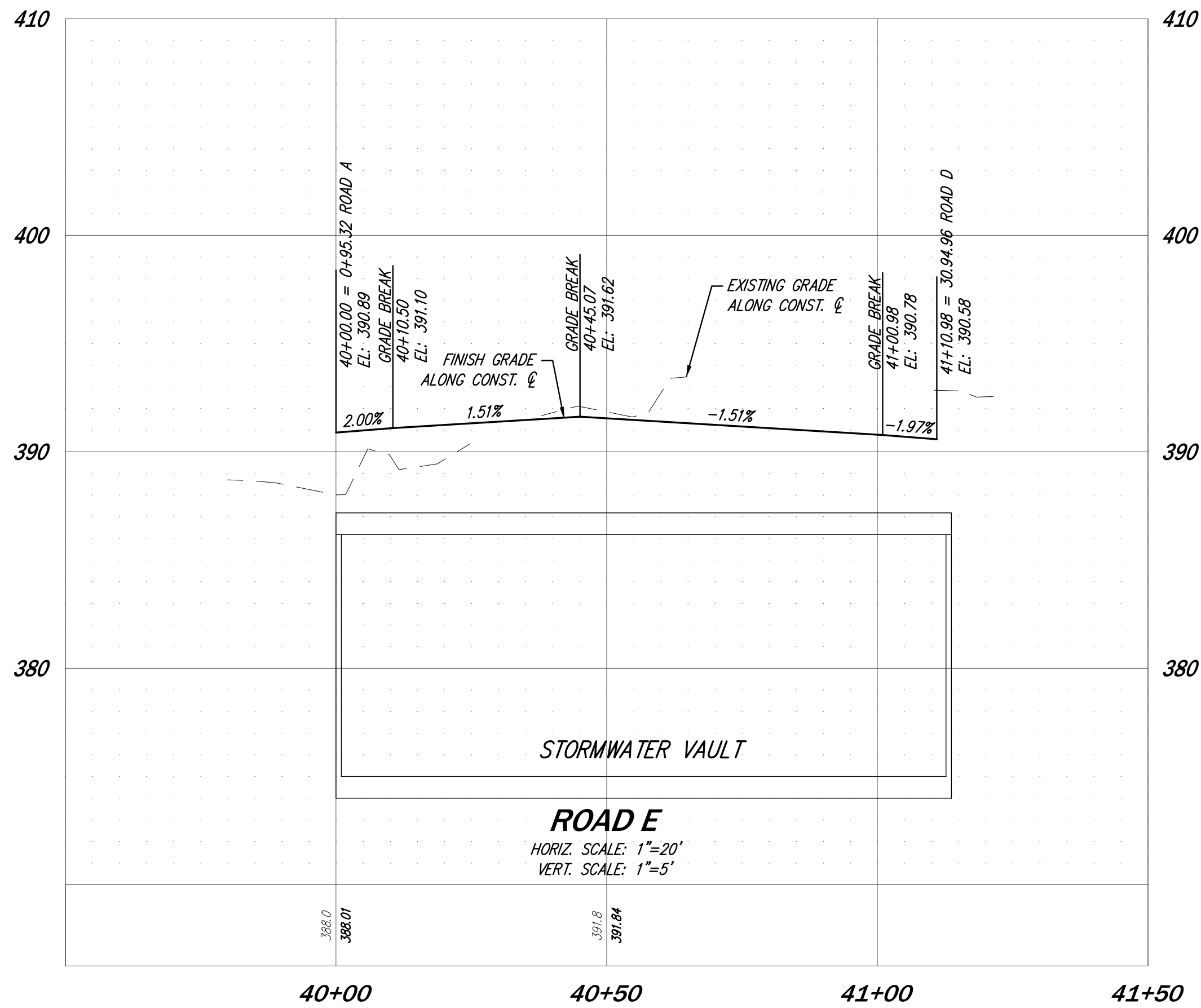
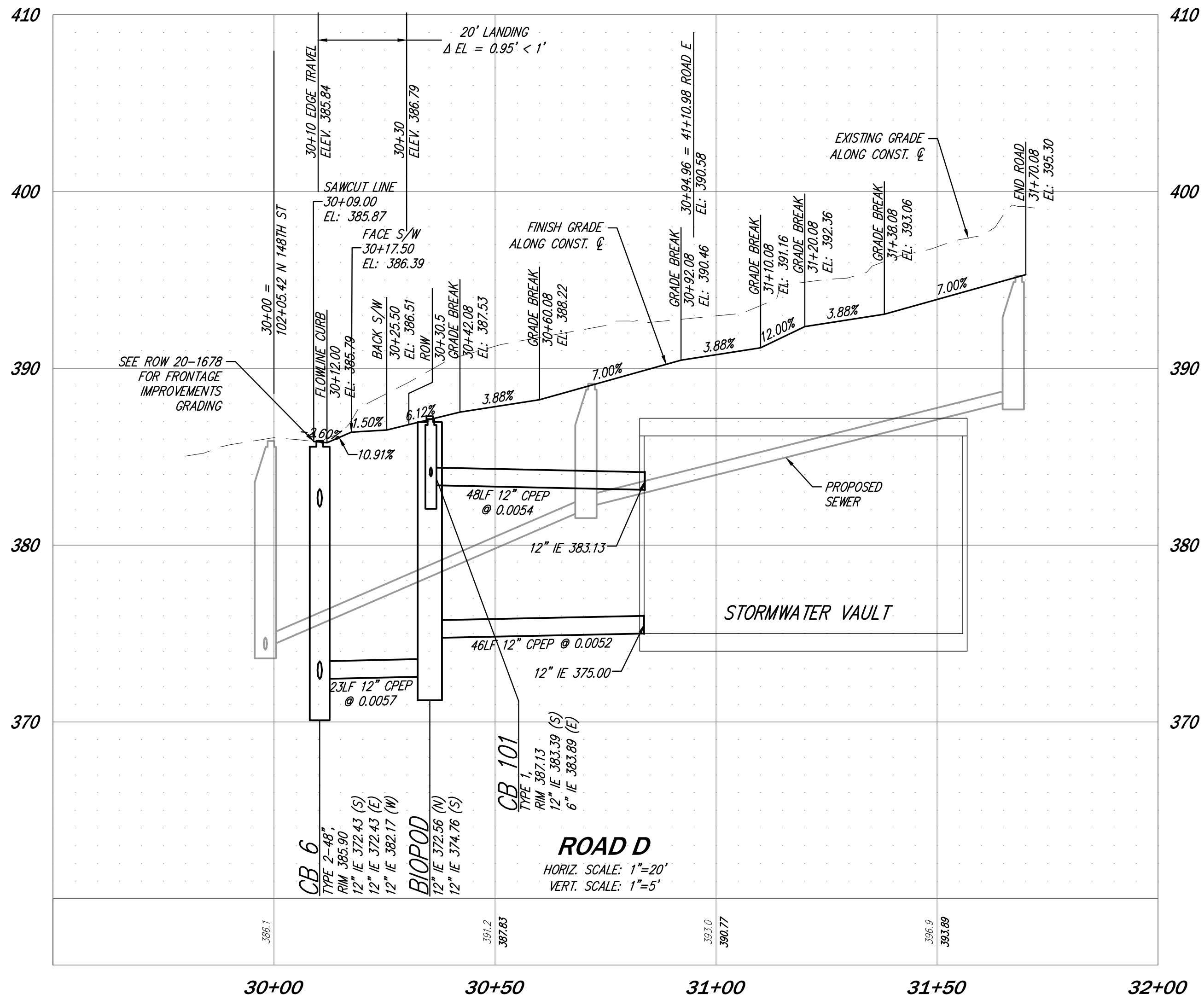
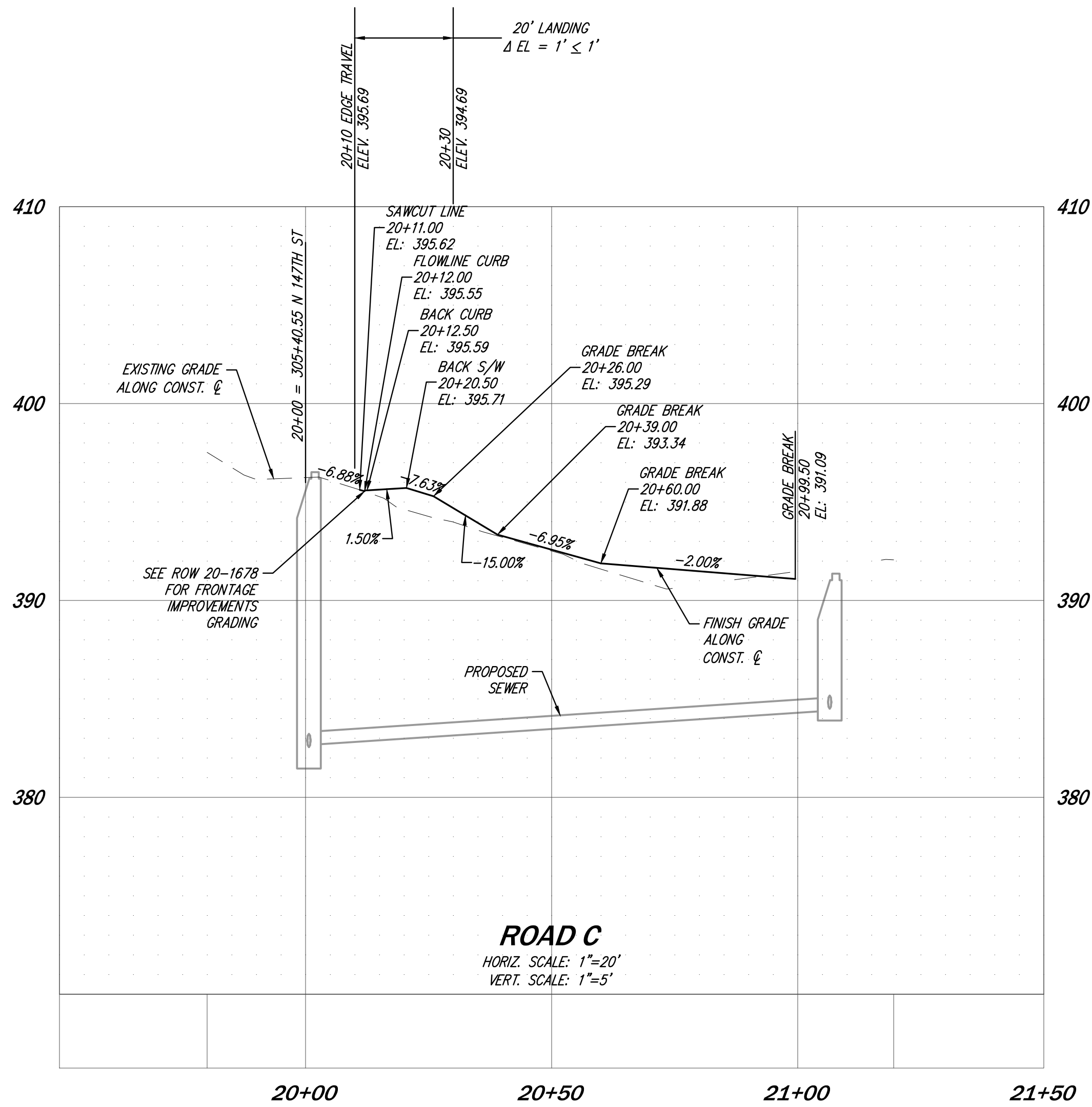
DATE	4/21/24
REVISED PER CITY COMMENTS	9/27/24
REVISED PER CITY COMMENTS	



DEV20-1621

DATE		SEE STAMP DATE	SHEET		C4.21 PROJECT NUMBER 19133
DESIGNED	GWA R. BROOKS, P.E.		ROAD AND STORM DRAINAGE PROFILES		
DRAWN	MARY MOORE		5 DEGREES		
APPROVED	GWA R. BROOKS, P.E.		PULTE HOMES OF WASHINGTON, INC.		
		GWA R. BROOKS, P.E.	3535 FACIOLIA BLVD SE, #600		

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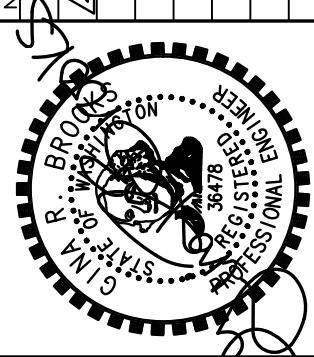


UNDERGROUND LOCATOR SERVICE
CALL BEFORE YOU DIG!
811

WORK WITHIN ROW WILL BE PERMITTED
UNDER #ROW20-1678

DEV20-1621

DATE	REVISIONS	REVISED PER CITY COMMENTS
4/27/21	1	
8/27/21	2	



CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

CORE DESIGN

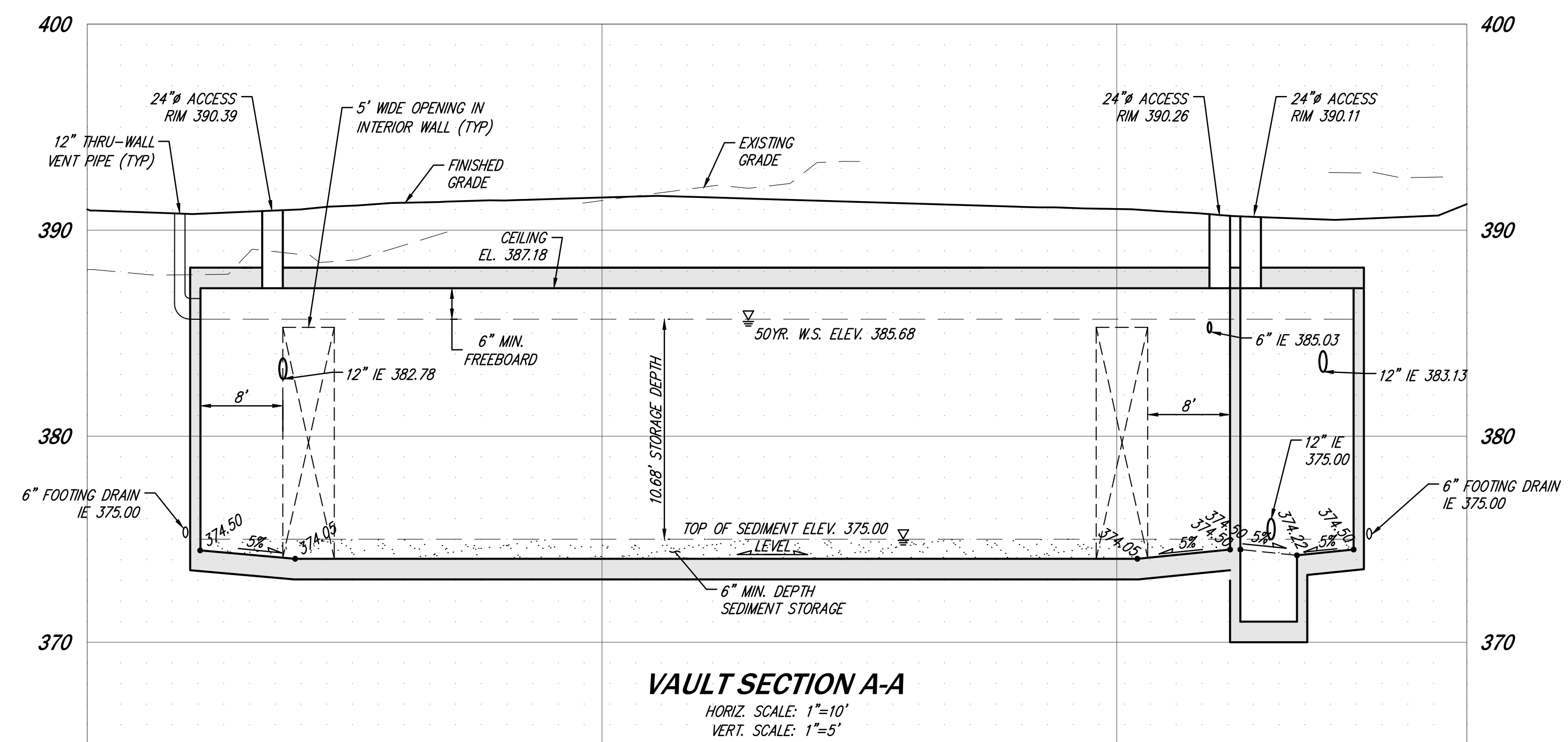
12100 NE 19th St, Suite 300, Bellevue, Washington 98011 425.885.7877

**ROAD AND STORM DRAINAGE PROFILES
5 DEGREES**

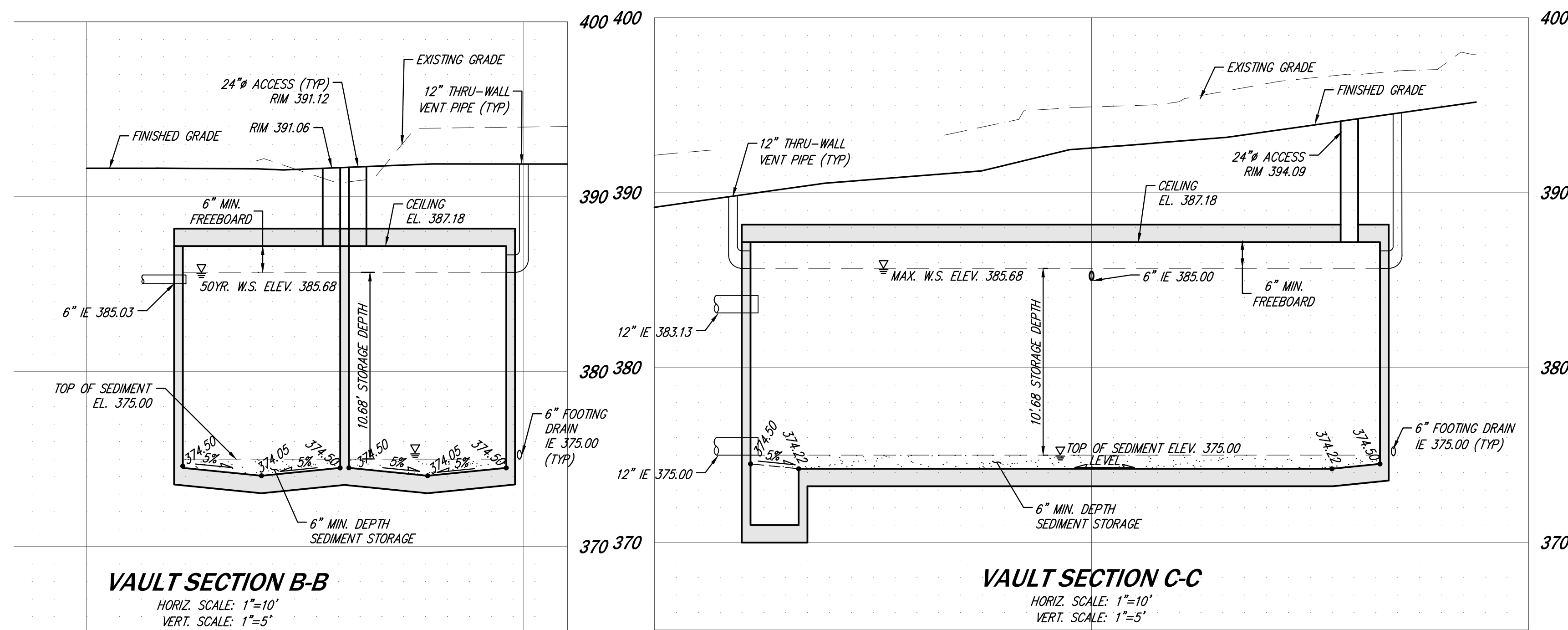
PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

DATE	SEE STAMP DATE
DESIGNED	GINA R. BROOKS, P.E.
DRAWN	MARY MOORE
APPROVED	GINA R. BROOKS, P.E.
PROJECT MANAGER	GINA R. BROOKS, P.E.

SHEET
C4.22
PROJECT NUMBER
19133



***VAULT
INTERIOR VAULT PLAN***



***VAULT
EXTERIOR VAULT PLAN***

<div> <div>DATE</div> <div>DESIGNED</div> <div>DRAWN</div> <div>APPROVED</div> </div>	<div>SEE STAMP DATE</div>	<div> <div>DATE</div> <div>DESIGNED</div> <div>DRAWN</div> <div>APPROVED</div> </div>	<div> <div>NO.</div> <div>REVISIONS</div> <div>REVISED PER CITY COMMENTS</div> <div>REVISED PER CITY COMMENTS</div> </div>	<div> <div>DATE</div> <div>4/21/21</div> <div>8/27/21</div> </div>
	GINA R. BROOKS, P.E.			
	MARY MOORE			
	GINA R. BROOKS, P.E.			
	GINA R. BROOKS, P.E.			
<div> <div>SHEET</div> <div>C4.31</div> </div>		<div> <div>PROJECT NUMBER</div> <div>19133</div> </div>		

UNDERGROUND LOCATOR SERVICE
CALL BEFORE YOU DIG!
811

**WORK WITHIN ROW WILL BE PERMITTED
UNDER #ROW20-1678**

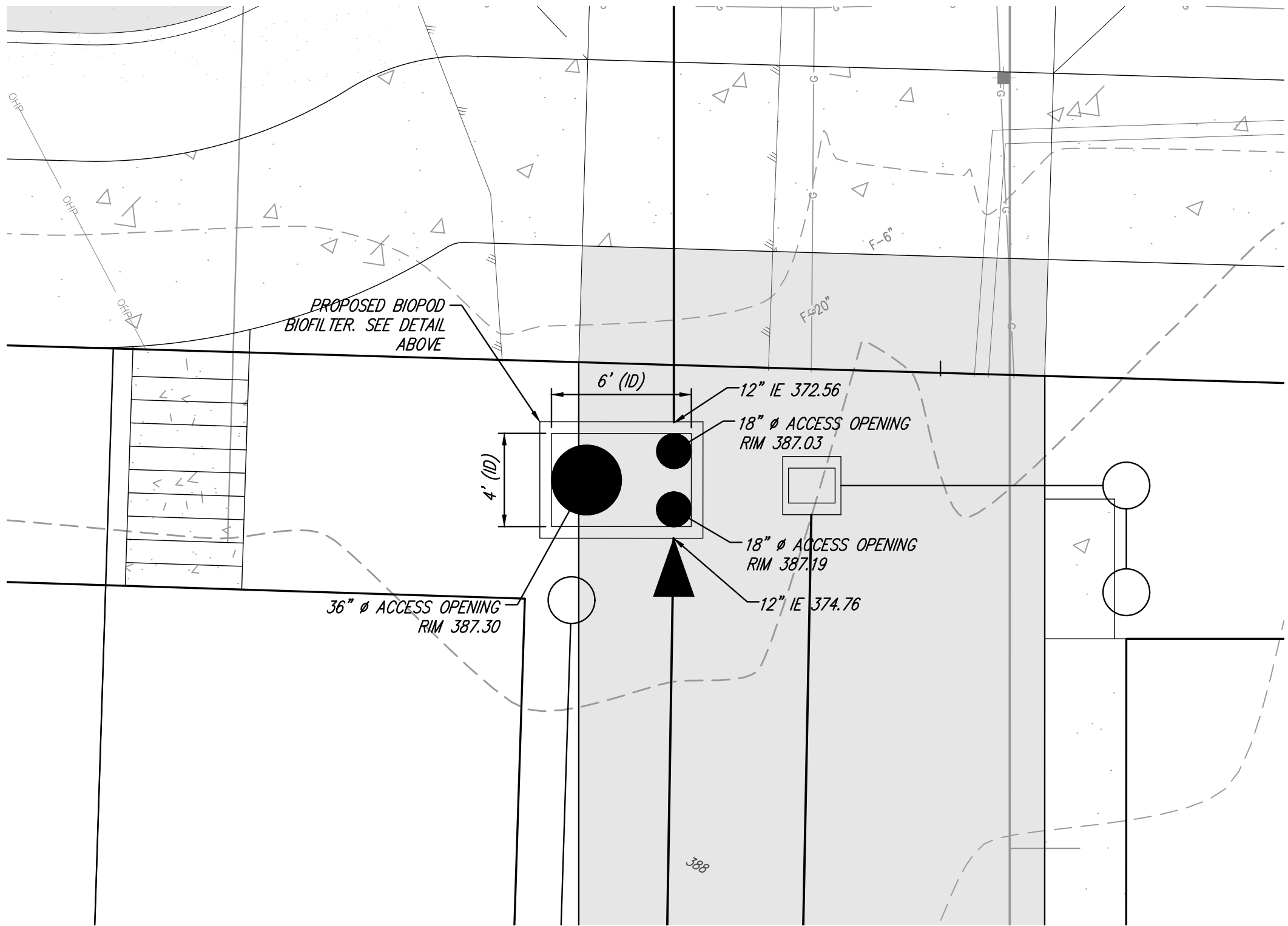
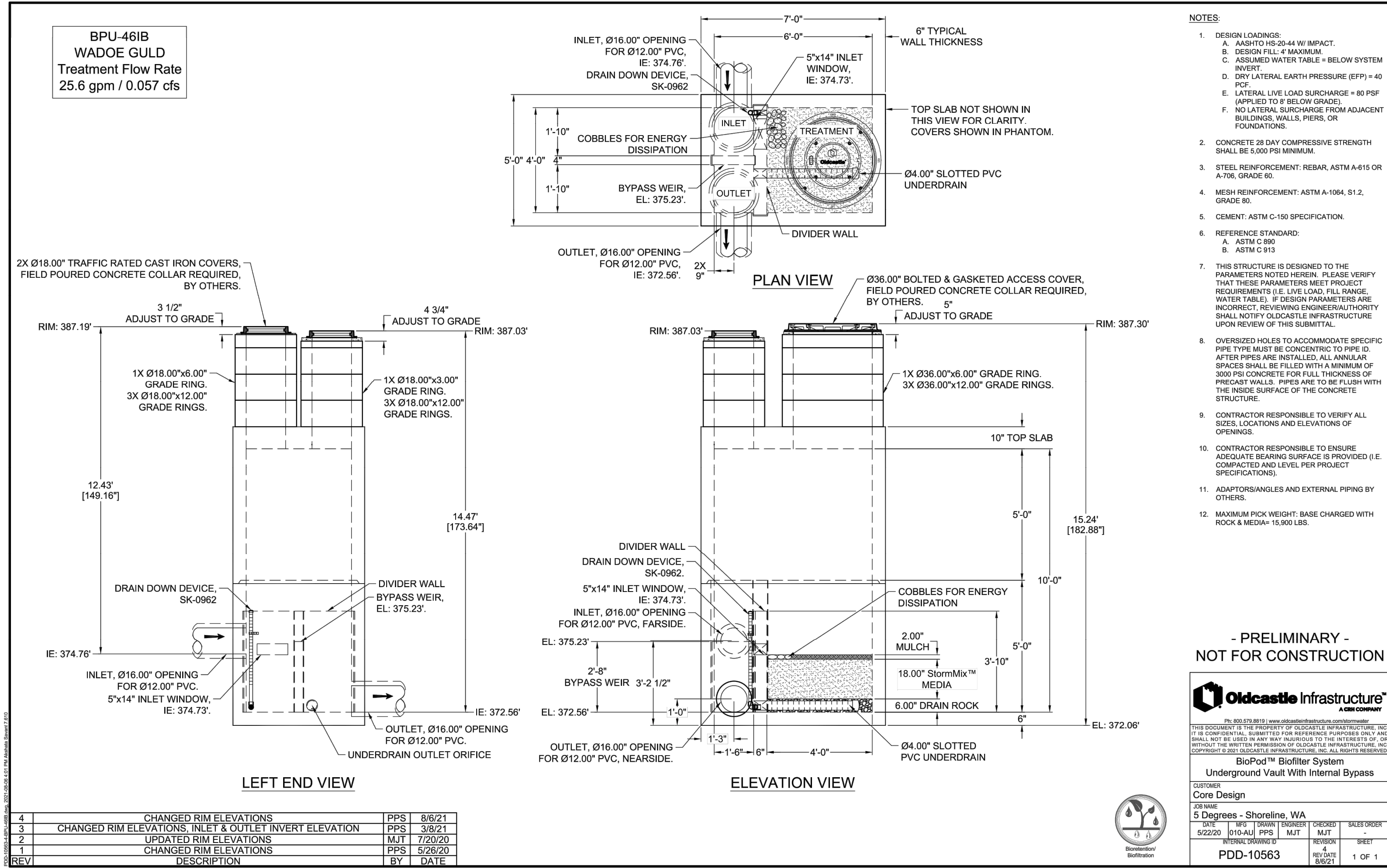
DEV20-1621

The logo for CORE DESIGN, featuring the word "CORE" in a large, bold, sans-serif font, with "DESIGN" in a smaller, all-caps, sans-serif font to its right. A thick, black, curved line arches over the text, starting from the left and ending on the right.

**PAULT DETAIL
5 DEGREES
IES OF WASHIN**
3535 FACTORIA BLVD SE, #600
BELLEVUE, WA 98006

SHEET
C4.32
PROJECT NUMBER
19133

DEV20-1621



BIOPOD DETAILS

1"=5'

UNDERGROUND LOCATOR SERVICE

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WORK WITHIN ROW WILL BE PERMITTED

UNDER #ROW20-1678

DEV20-1621

DATE: SEE STAMP DATE

DESIGNED: GINA R. BROOKS, P.E.

DRAWN: MARY MOORE

APPROVED: GINA R. BROOKS, P.E.

PROJECT MANAGER: GINA R. BROOKS, P.E.

SHEET

C4.33

PROJECT NUMBER

19133

BIOPOD DETAILS

5 DEGREES

PULTE HOMES OF WASHINGTON, INC.

3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

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LANDSCAPE ARCHITECTURE
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DESIGN

8-27-21



SEE SHEET C7.02

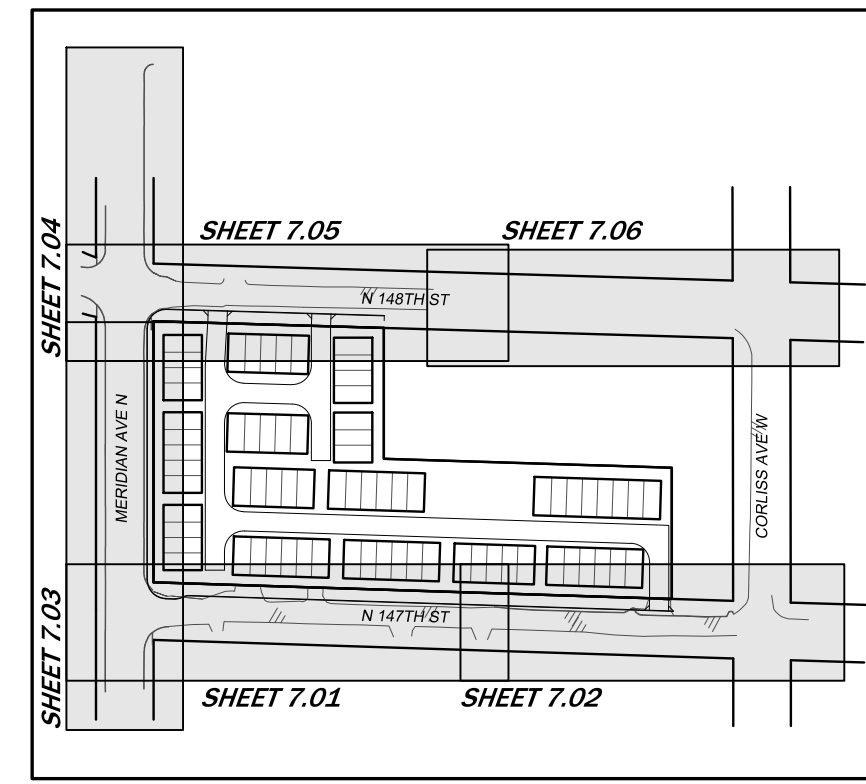
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CB GRATES/RIMS AND MEDALLIONS

ALL CB GRATES SHALL BE RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03 UNLESS OTHERWISE NOTED. CB'S NOTED WITH SOLID ROUND LIDS SHALL BE PER WSDOT STD. PLAN B-30.90-02. CB NOTED WITH SOLID RECTANGULAR LIDS SHALL BE PER WSDOT STD. PLAN B-30.20-04. STORM DRAIN MEDALLIONS SHALL BE INSTALLED AT EACH OPEN GRATE CB PER CITY STD. DTL. 725.



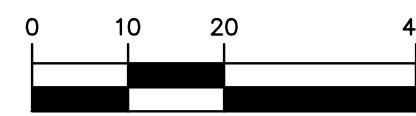
KEY MAP

REMOVED CB'S

CB'S 5, 7, 8, 10, 14, AND 16 HAVE BEEN REMOVED.



SCALE: 1" = 20'



PIPE MATERIALS, COVER, AND BEDDING

Pipe Material	Minimum Cover (in)	Pipe Bedding Requirements
Perforated Corrugated Polyethylene Pipe (CPEP) (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Non-perforated CPEP (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
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Ductile iron pipe	6	Same as non-perforated CPEP
Yard drain lines - any material	18	5/8" minus crushed rock, compacted in 8-in lifts.

DEMOLITION

SEE SITE DEVELOPMENT PLANS UNDER SEPARATE COVER FOR ABANDONMENT / REMOVAL OF EXISTING UTILITIES AND SURFACES.

GRIND AND OVERLAY REQUIREMENTS

COLD-PLANE BOTH ENDS OF THE OVERLAY PERPENDICULAR TO THE ROADWAY FOR AT LEAST 15 FEET TO PROVIDE A FLUSH TRANSITION. FOR HALF-STREET OR FULL-STREET OVERLAYS, COLD-PLANING (GRINDING) OF THE ENTIRE PAVING AREA IS REQUIRED (CENTERLINE TO GUTTER OR GUTTER TO GUTTER). WHEN CURB AND GUTTER DOES NOT EXIST, THE NEW OVERLAY SURFACE MAY, AT THE DIRECTOR'S DISCRETION, BE TAPERED TO MEET THE ELEVATION OF ADJACENT PAVED SURFACES. ALL ASPHALT JOINTS AND TAPERED TRANSITIONS SHALL BE SEALED WITH AR4000 OR EQUIVALENT. WHERE CURB AND GUTTER DOES NOT EXIST, THE SHOULDER SHALL BE RESTORED WITH CRUSHED ROCK.

DATUM

HORIZONTAL-NAVD 1983/91
VERTICAL-NAVD 88

BASIS OF BEARINGS

N88°09'39"W BETWEEN THE TWO FOUND MONUMENTS IN THE CENTERLINE OF NORTH 147TH STREET.

BENCHMARK

WGS BENCHMARK B25

ELEVATION: 436.02

PROJECT BENCHMARKS

PROJECT BENCHMARK 1:
SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:
SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET
EL: 405.62

UNDERGROUND LOCATOR SERVICE

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SITE WORK WILL BE PERMITTED UNDER

#DEV20-1621

ROW20-1678

FRONTAGE - N 147TH ST
5 DEGREES

PULTE HOMES OF WASHINGTON, INC.

3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

DATE
DESIGNED
DRAWN
APPROVED

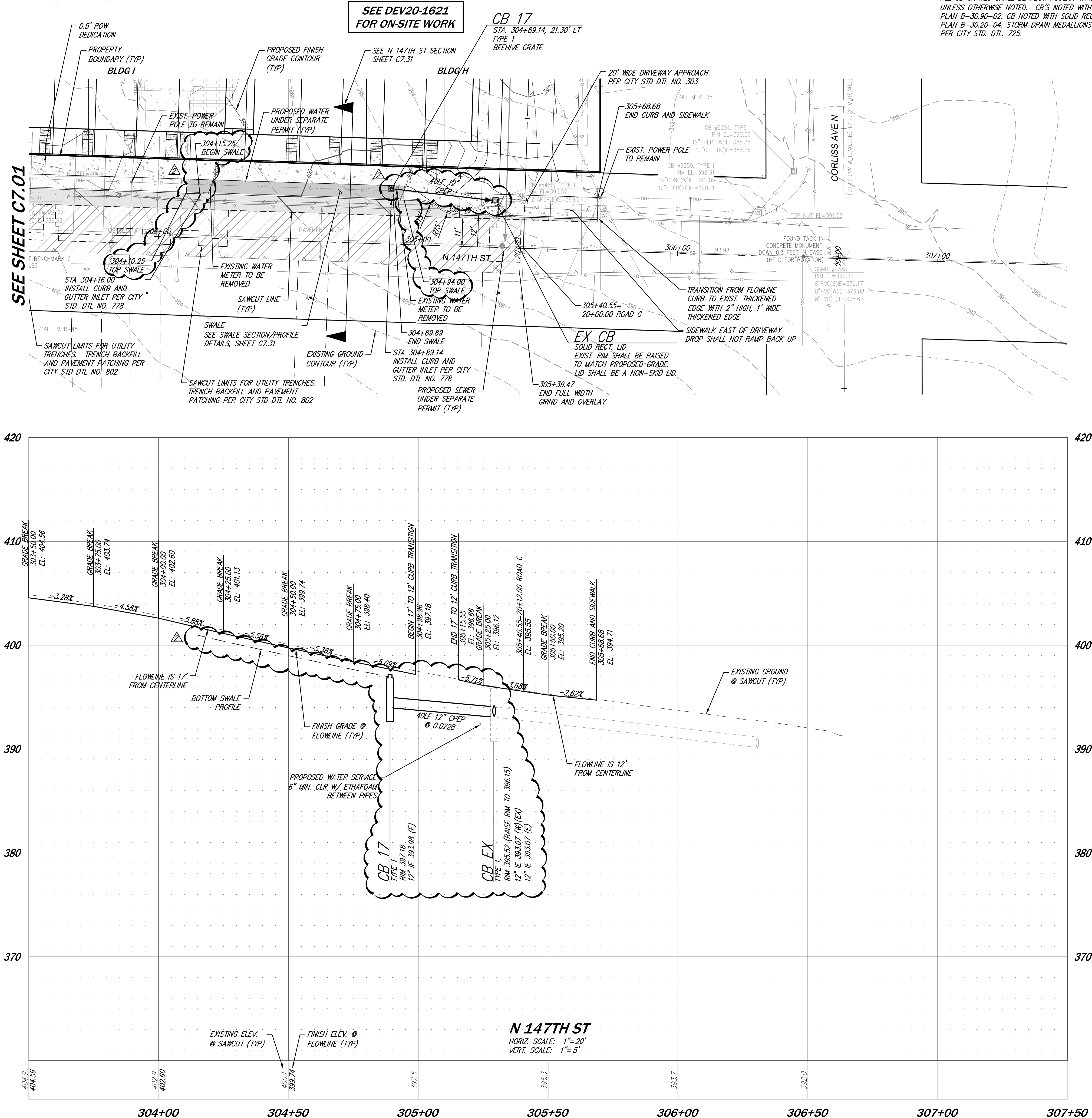
GINA R. BROOKS
MARY MOORE
GINA R. BROOKS, P.E.

GINA R. BROOKS, P.E.
PROJECT MANAGER

SHEET

C7.02

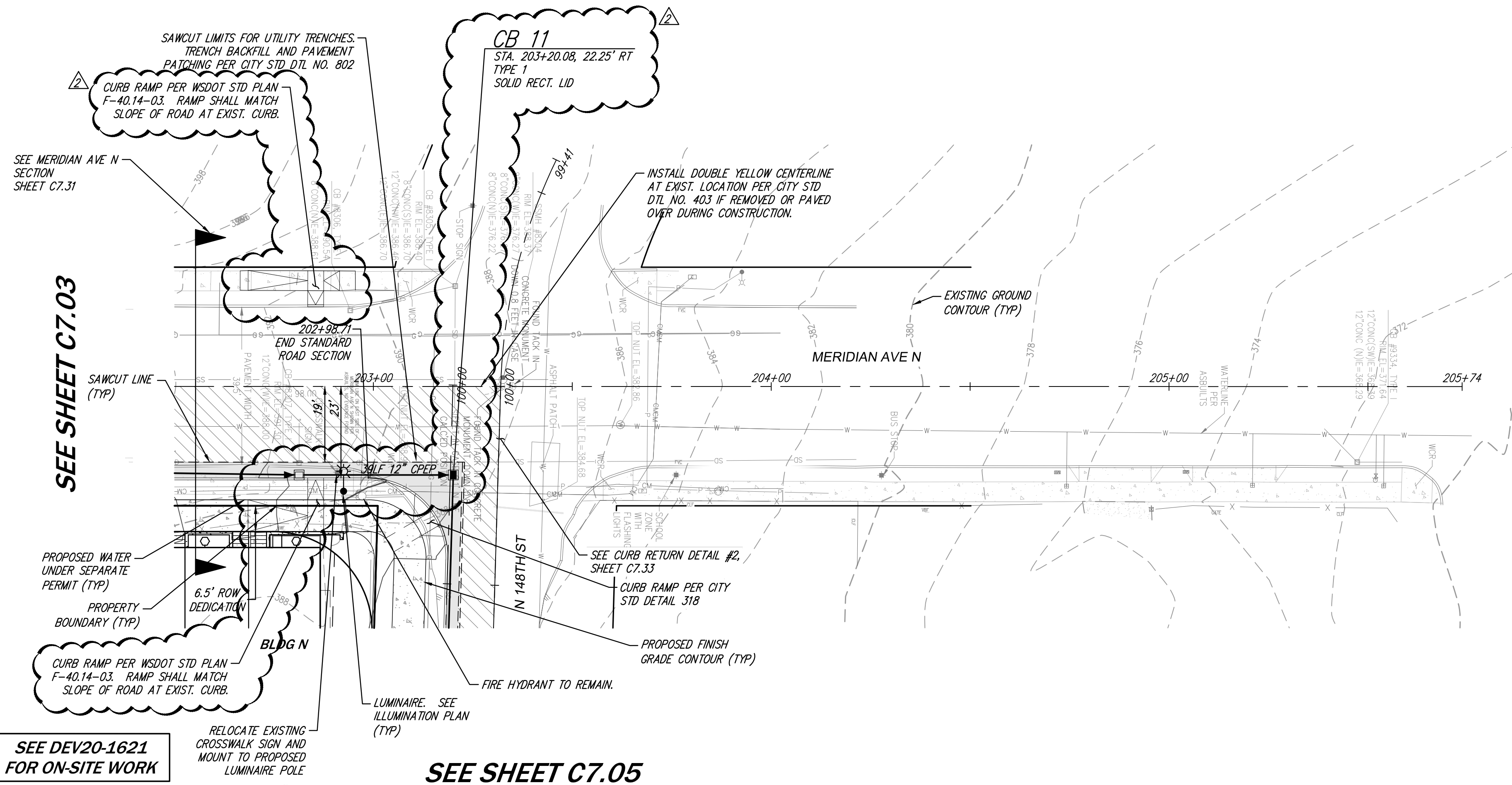
PROJECT NUMBER
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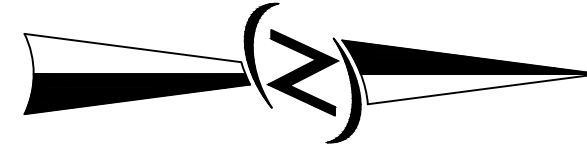
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#DEV20-1621
ROW20-1678***



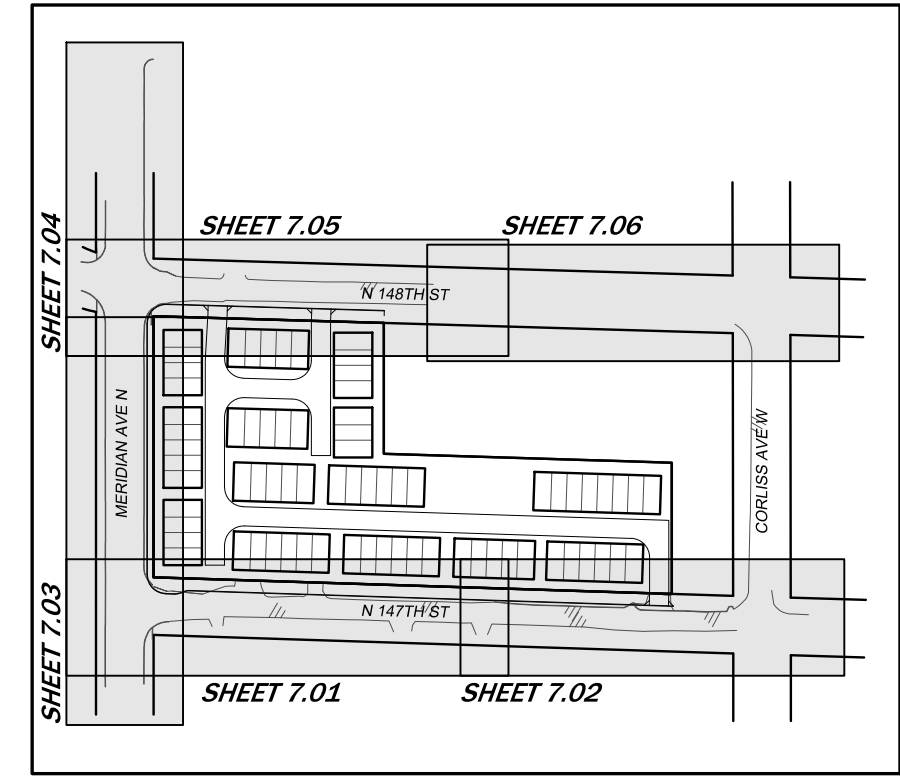
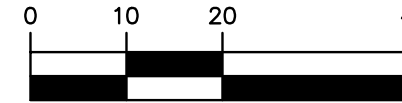


CB GRATES/RIMS AND MEDALLIONS

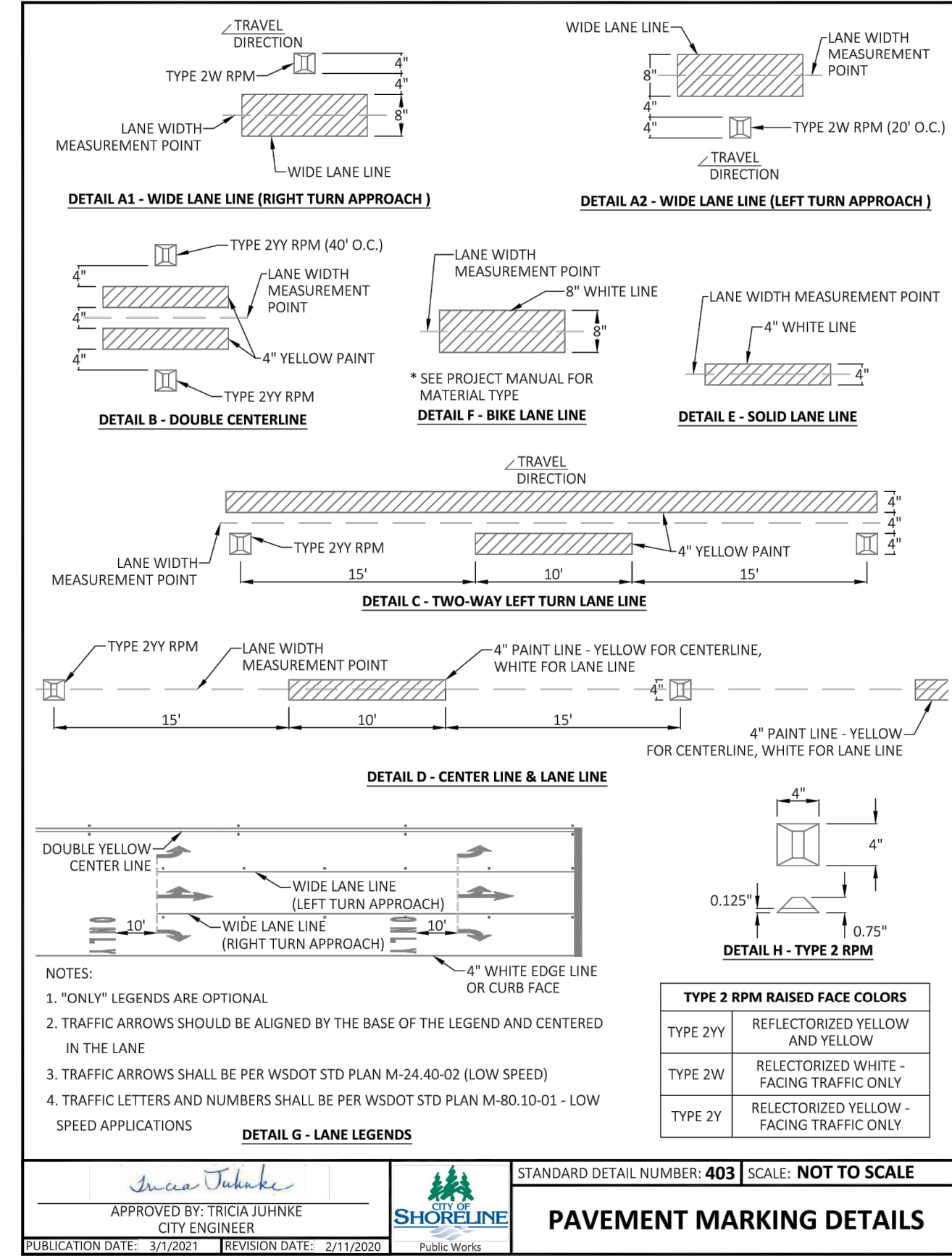
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SCALE: 1" = 20'



KEY MAP



PIPE MATERIALS, COVER, AND BEDDING

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DEMOLITION

SEE SITE DEVELOPMENT PLANS UNDER SEPARATE COVER FOR ABANDONMENT / REMOVAL OF EXISTING UTILITIES AND SURFACES.

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DATUM

HORIZONTAL - NAD 1983/91
VERTICAL - NAVD 88

BASIS OF BEARINGS

N88°09'39"W BETWEEN THE TWO FOUND MONUMENTS IN THE CENTERLINE OF NORTH 147TH STREET.

BENCHMARK

WGS BENCHMARK B25

ELEVATION: 436.02

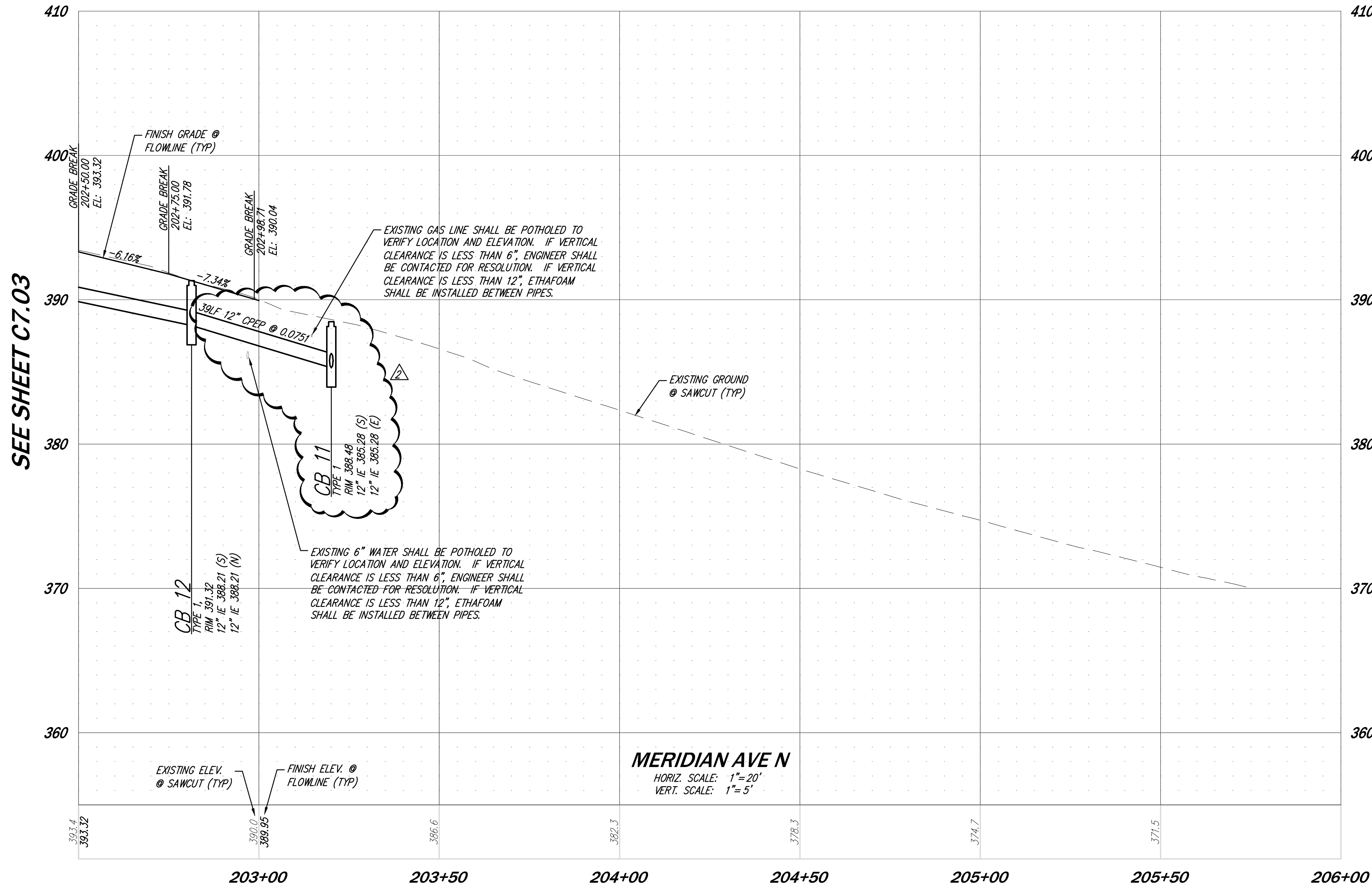
PROJECT BENCHMARKS

PROJECT BENCHMARK 1:
SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:
SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET
EL: 405.62

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SITE WORK WILL BE PERMITTED UNDER
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ROW20-1678



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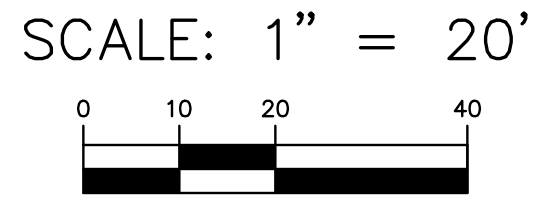
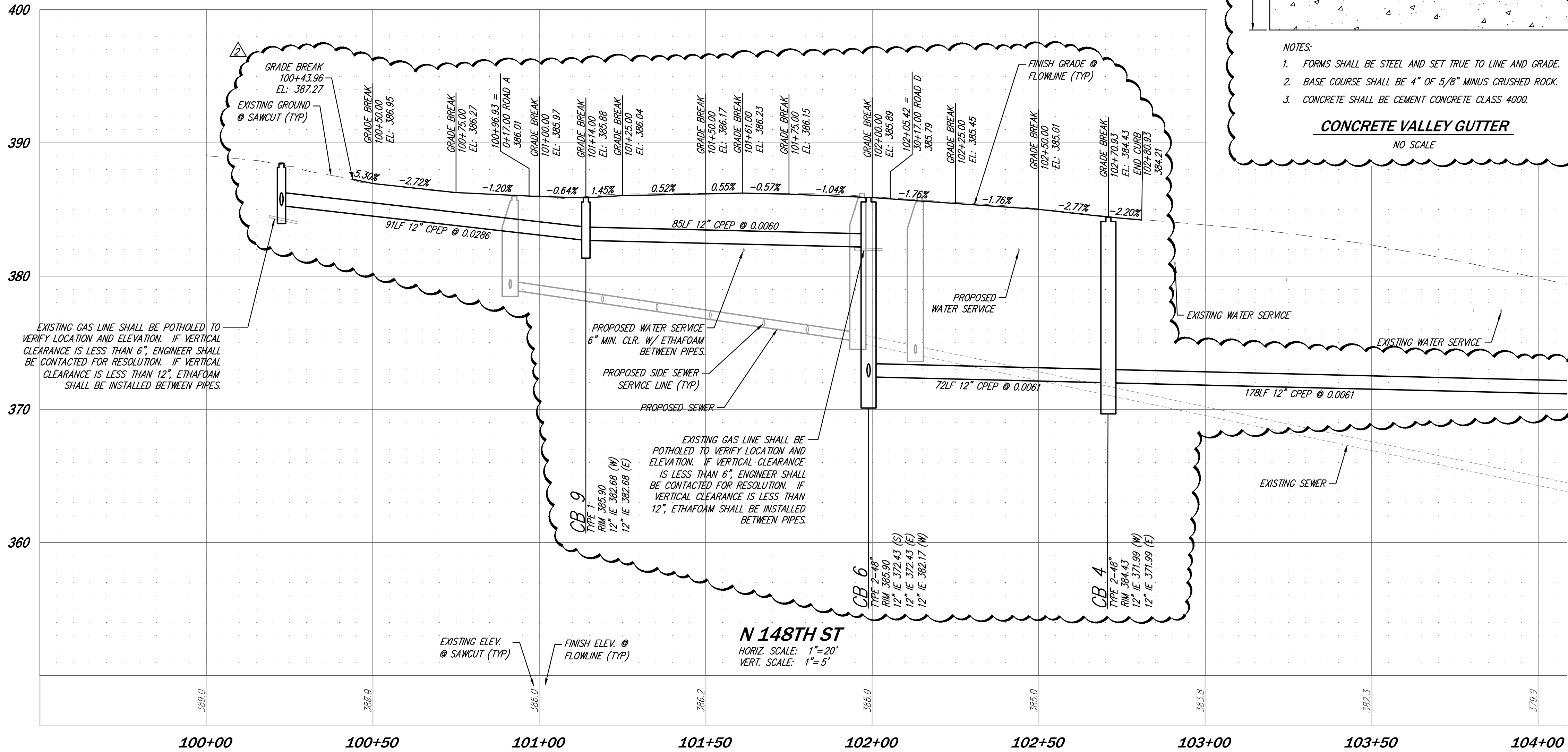
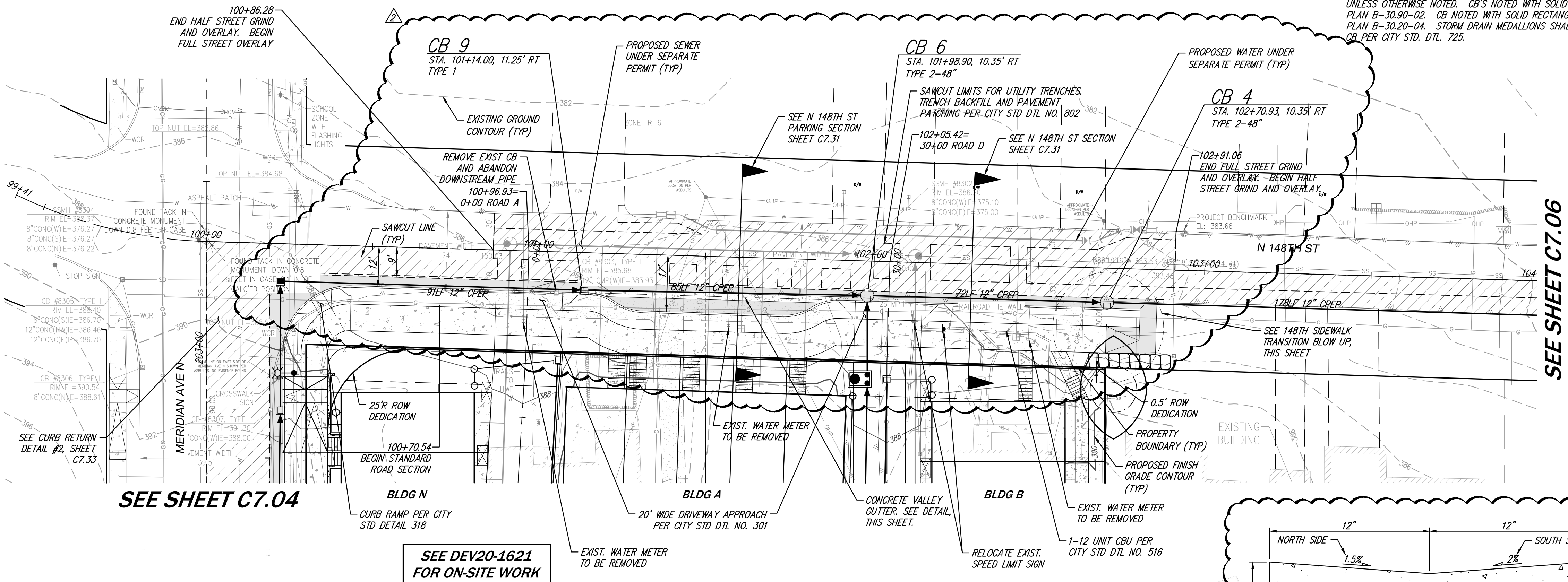
FRONTAGE - MERIDIAN AVE N
5 DEGREES
PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

DATE: 8/12/2021
DESIGNED: GINA R. BROOKS
DRAWN: MARY MOORE
APPROVED: GINA R. BROOKS, P.E.
PROJECT MANAGER: GINA R. BROOKS, P.E.

SHEET
C7.04
PROJECT NUMBER
19133

CB GRATES/RIMS AND MEDALLIONS

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DATE	REVISIONS	REVISED PER CITY COMMENTS
4/27/20	1	
8/13/21	2	

DATE: 8/13/21

DESIGNED: GINA R. BROOKS

DRAWN: MARY MOORE

APPROVED: GINA R. BROOKS, P.E.

PROJECT MANAGER: GINA R. BROOKS, P.E.

SHEET: C7.05

PROJECT NUMBER: 19133

FRONTAGE - N 148TH ST
5 DEGREES

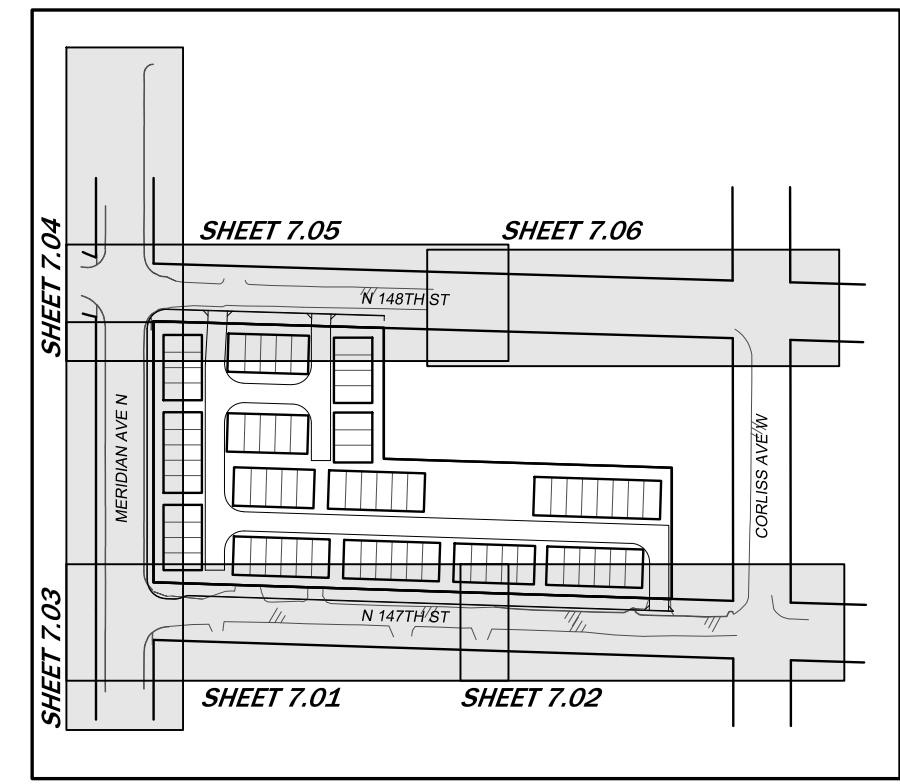
PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

CORE DESIGN

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

ALL CB GRATES SHALL BE RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03
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PER CITY STD. DTL. 725.



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SEE SITE DEVELOPMENT PLANS UNDER SEPARATE COVER FOR ABANDONMENT / REMOVAL OF EXISTING UTILITIES AND SURFACES.

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HORIZONTAL-NAD 1983/91
VERTICAL-NAVD 88

N88°09'39"W BETWEEN THE TWO FOUND MONUMENTS IN THE
CENTERLINE OF NORTH 147TH STREET.

WGS BENCHMARK B25

ELEVATION: 436.02

PROJECT BENCHMARK

SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:

SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET
EL: 405.62

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***SITE WORK WILL BE PERMITTED UNDER
#DEV20-1621***

ROW20-1678

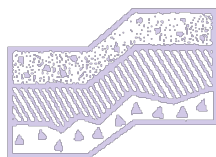
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8/12/2021 9:00 AM J: 2019\19133\ENGINEERING\FINAL\SHEETS\FRONTAGE IMPROVEMENT PLANS\19133 C7.05.DWG

Figure 4. Planting Plan – Not Applicable

Appendix A

Infiltration Testing



TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

June 25, 2020
Project No. T-8268

Mr. Jim Sprott
Pulte Homes of Washington, Inc.
3535 Factoria Boulevard, Suite 600
Bellevue, Washington 98006

Subject: Geotechnical Evaluation
Infiltration Infeasibility
Shoreline Townhomes
North 147th Street and Meridian Avenue North
Shoreline, Washington

Reference: DRAFT Geotechnical Report, Shoreline Townhomes, N 147th Street and Meridian Avenue N,
Shoreline, Washington, Project No. T-8268, prepared by Terra Associates, Inc.,
dated December 13, 2019

Dear Mr. Sprott:

As requested, we performed a geotechnical evaluation of soil conditions at the subject site. The purpose of our evaluation was to determine if the soils at the site would be suitable for support of infiltration facilities. The City of Shoreline using the 2019 Department of Ecology Stormwater Management Manual for Western Washington for stormwater management. In accordance with the manual, infiltration is deemed infeasible if the measured infiltration rate is less than 0.3 inches per hour.

In order to determine the infiltration rate at the site, we completed one small pilot infiltration test. Only one test was completed due to the current development at the project site. The test was completed at the approximate location shown on attached Figure 1. The soils exposed at the bottom of the infiltration pit consisted of dense silty sand with gravel which is consistent with the majority of the soils observed throughout the plat. For the tests, we filled the approximately 3-foot by 4-foot by 5-foot deep hole with approximately 8.5 inches of water and ran a falling head percolation test for approximately 120 minutes. At the end of the 120 minutes, 8 inches of water remained in Infiltration Test IT-1 for measurable infiltration rates of 0.25 inches per hour. This rate is lower than the required 0.3 inches per hour. Based on the results of our tests, it is our opinion that the native soils at the site are not suitable for support of any infiltration facilities including low impact development techniques.

Mr. Jim Sprott
June 25, 2020

We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.

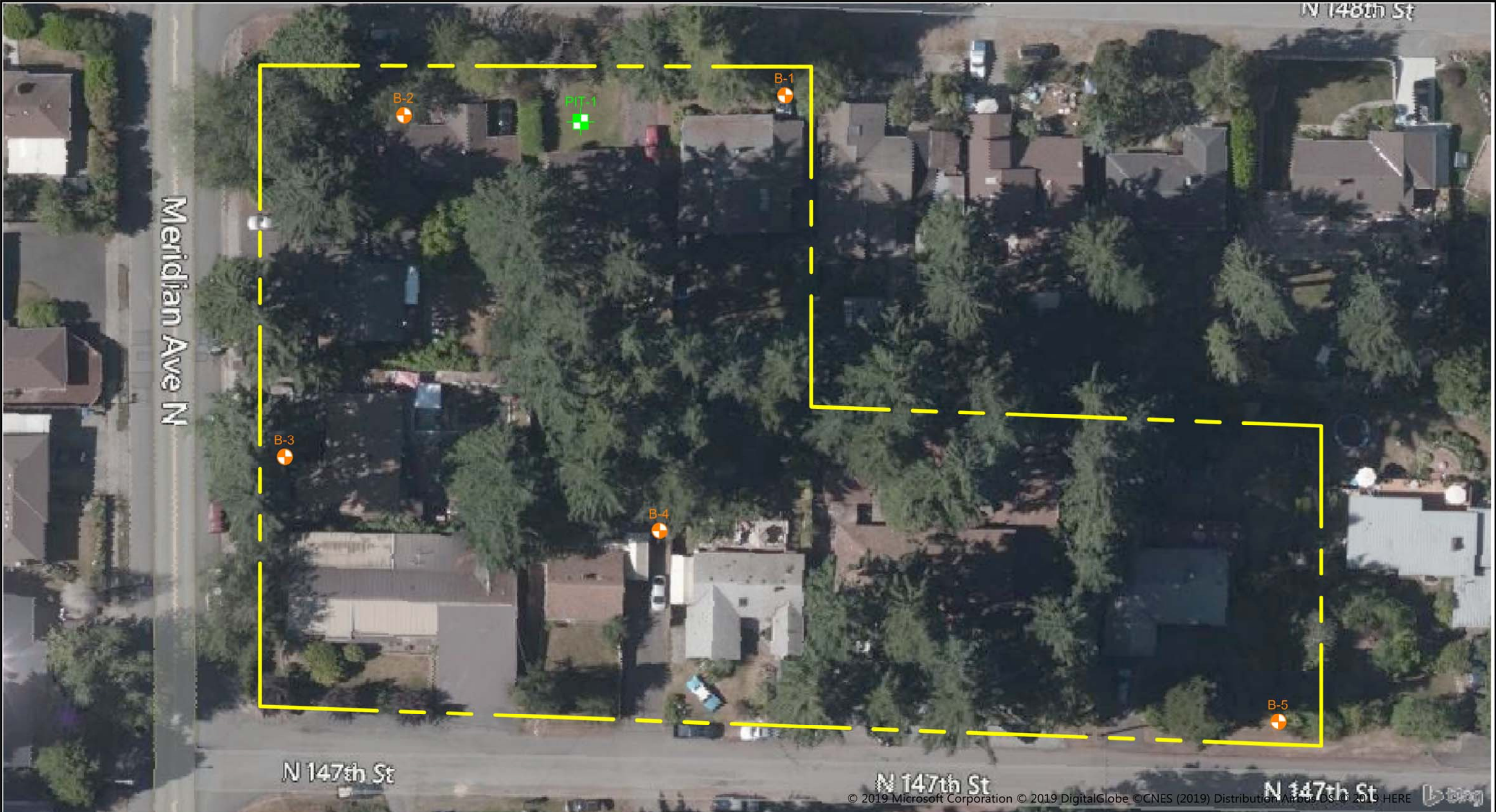


Carolyn S. Decker

6-25-2020

Carolyn S. Decker, P.E.
Project Engineer

Enclosed: Figure Exploration Location Plan





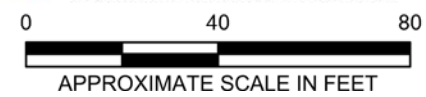
NOTE:

THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

REFERENCE: SITE PLAN PROVIDED BY <https://www.bing.com/maps>.

LEGEND:

-  APPROXIMATE BORING LOCATION
TERRA ASSOCIATES DECEMBER 2019
-  APPROXIMATE PILOT INFILTRATION TEST LOCATION
TERRA ASSOCIATES JUNE 2020





Terra Associates, Inc.
Consultants in Geotechnical Engineering
Geology and
Environmental Earth Sciences

EXPLORATION LOCATION PLAN SHORELINE TOWNHOMES SHORELINE, WASHINGTON		
Proj.No. T-8268	Date:JUNE 2020	Figure 1

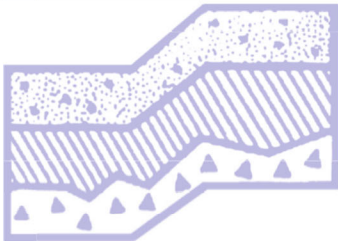
Appendix B

Geotechnical Report

GEOTECHNICAL REPORT

**5 Degrees
North 147th Street and Meridian Avenue North
Shoreline, Washington**

Project No. T-8268



Terra Associates, Inc.

Prepared for:

**Pulte Homes of Washington, Inc.
Bellevue, Washington**

December 13, 2019



TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

December 13, 2019
Project No. T-8268

Mr. Jim Sprott
Pulte Homes of Washington, Inc.
3535 Factoria Boulevard, Suite 600
Bellevue, Washington 98006

Subject: Geotechnical Report
5 Degrees
North 147th Street and Meridian Avenue North
Shoreline, Washington

Dear Mr. Sprott:

As requested, we conducted a geotechnical engineering study for the subject project. The attached report presents our findings and recommendations for the geotechnical aspects of project design and construction.

The soils observed in our test borings consist of six inches of topsoil and organics overlying glacially derived silty sand and sand soils. The soils are primarily medium dense to very dense, with two- to four-foot thick layers of loose soils found in two of the test borings. No groundwater was observed in any of the test borings.

In our opinion, there are no geotechnical conditions that would preclude the project, as currently planned. Structures can be supported on conventional spread footings bearing on competent native soil or on structural fill placed on competent native soil subgrades. Floor slabs and driveway pavement can be similarly supported.

Detailed recommendations addressing these issues and other geotechnical design considerations are presented in the attached report. We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.

Kevin P. Roberts
Kevin P. Roberts, P.E.
Geotechnical Engineer
Carolyn S. Decker
Carolyn S. Decker, P.E.
Project Engineer

12-13-19

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Appendix

Field Exploration and Laboratory Testing	Appendix A
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**Geotechnical Report
5 Degrees
North 147th Street and Meridian Avenue North
Shoreline, Washington**

1.0 PROJECT DESCRIPTION

The proposed project consists of redeveloping the site with eight townhome buildings and associated utility and access improvements. A review of preliminary architectural plans, dated October 24, 2019, prepared by Board & Vellum Architecture and Design indicates buildings will be constructed with three levels and will include at-grade garages. Drive aisle access will be from North 147th and North 148th Streets. Based on the overall relatively level site topography, we expect minor grading will be required to achieve finished building and drive aisle grades.

We anticipate the structures will be constructed with wood framing. Foundation loads should be relatively light, in the range of 3 to 5 kips per foot for bearing walls and 75 to 125 kips for isolated columns.

The recommendations in this report are based on the design features discussed above. If actual features vary or changes are made, we should review the plans in order to modify our recommendations, as required. We should review final design drawings and specifications to verify that our recommendations have been properly interpreted and incorporated into the project design.

2.0 SCOPE OF WORK

On November 27, 2019, we explored subsurface conditions at the site by drilling 5 test borings to depths of 15.5 feet to 16.5 feet below existing grades using a track-mounted drill rig. Using the information obtained from our subsurface exploration and office review, we performed analyses to develop geotechnical engineering recommendations for project design and construction. Specifically, this report addresses the following:

- Soil and groundwater conditions
- Geologic hazards per the City of Shoreline Municipal Code
- Seismic Site Class
- Site preparation and grading
- Excavations
- Foundations
- Slab-on-grade floors
- Lateral earth pressures
- Infiltration feasibility including Low Impact Development (LID) techniques
- Drainage
- Utilities
- Pavements

It should be noted that recommendations outlined in this report regarding drainage are associated with soil strength, design earth pressures, erosion, and stability. Design and performance issues with respect to moisture as it relates to the structure environment are beyond Terra Associates' purview. A building envelope specialist or contractor should be consulted to address these issues, as needed.

3.0 SITE CONDITIONS

3.1 Surface

The site as currently shown on the plans consists of seven tax parcels totaling approximately 1.34 acres of land. The parcels are located east of Meridian Avenue North between North 147th and North 148th Streets in Shoreline, Washington. Four additional parcels located at 2122, 2132, 2142, and 2150 North 147th Street were recently added to the project site for future project expansion. The approximate location of the site is shown on Figure 1.

Single-story, single-family residences currently occupy each parcel. The site's overall topography is relatively flat. Site vegetation generally consists of grass lawn and landscape trees and shrubs. Several mature conifers are located at the central portion of the site.

3.2 Soils

The soils observed in our test borings generally consist of six inches of topsoil and organics overlying variably thick layers of glacially derived silty sand and sand with silt. Test Boring B-4 showed a 3-inch thick layer of surface asphalt overlying the silty sand soils.

Each of the test borings found silty sand with variable gravel content to depths ranging from seven feet in Test Borings B-2 and B-5 to 14.5 feet at the location of Test Boring B-4. The silty sand soils are generally in a medium dense to very condition. Loose silty sands were observed to a depth of approximately four feet at Test Boring B-1, and between depths of 4.5 feet and seven feet in Test Boring B-2.

Layers of dense to very dense sand and sand with silt were observed beneath the silty sand soils in each of the test borings. Except for Test Boring B-1, which was terminated in silty sands, the test borings were terminated within sand or sand with silt soils.

The Geologic Map of Seattle – A Progress Report by Kathy Goetz Troost et al, dated 2005, shows the site soils mapped as Till (Qvt). The loose to very dense silty sand soils observed in the test borings are generally consistent with weathered and unweathered horizons of this soil unit.

Detailed descriptions of the subsurface conditions observed in our site explorations are presented on the Test Boring Logs in Appendix A. The approximate test boring locations are shown on Figure 2.

3.3 Groundwater

No groundwater was observed during drilling of the site's test borings. In addition, we observed no mottling of soils that would indicate fluctuating or seasonal perched groundwater levels at the site.

3.4 Geologic Hazards

We evaluated site conditions for the presence of geologic hazards as designated in the Shoreline Municipal Code (SMC).

3.4.1 Landslide Hazard Areas

Chapter 20.80.220 A. of the SMC defines landslide hazard areas as "...those areas potentially subject to landslide activity based on a combination of geologic, topographic, and hydrogeologic factors as classified in Subsection B of this section with slopes 15 percent or steeper within a vertical elevation change of at least 10 feet or all areas of prior landslide activity regardless of slope..."

The relatively level topography at the site precludes the existence of landslide hazard areas as defined in SMC.

3.4.2 Seismic Hazard Areas

Chapter 20.80.220 C. of the SMC defines seismic hazard areas as "...lands that due to a combination of soil and ground water conditions, are subject to risk of ground shaking, lateral spreading, subsidence, or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium) or peat deposits and have a shallow ground water table."

Based on the predominantly medium dense to very dense nature of the site soils and absence of groundwater, it is our opinion that there is no risk for damage resulting from soil liquefaction or subsidence during a severe seismic event. Accordingly, in our opinion, unusual seismic hazard areas do not exist at the site, and design in accordance with local building codes for determining seismic forces would adequately mitigate impacts associated with ground shaking.

3.4.3 Erosion Hazard Areas

Chapter 20.80.220 D. of the SMC defines erosion hazard areas as "...lands or areas underlain by soils identified by the U.S. Department of Agriculture Natural Resources Conservation Service (formerly the Soil Conservation Service) as having "severe" or "very severe" erosion hazards. This includes, but is not limited to, the following group of soils when they occur on slopes of 15 percent or greater: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD), and Indianola (InD)."

NRCS soil maps indicate the site lies within a "No Data" area. Based on the site's level topography and glacial till soils, the soils would likely be classified as *Alderwood gravelly sandy loam, 0 to 8 percent slopes (AgB)*. The erosion hazard of this soil type is listed as "slight." Accordingly, it is our opinion that no erosion hazard areas are present at the site.

Regardless of erosion hazard designation, the site soils will be susceptible to erosion when exposed during construction. In our opinion, the erosion potential of site soils would be adequately mitigated with proper implementation and maintenance of City of Shoreline approved Best Management Practices (BMPs) for erosion prevention and sedimentation control during construction.

3.5 Seismic Site Class

Based on the site soil conditions and our knowledge of the area geology, per the 2018 International Building Code (IBC), site class "C" should be used in structural design.

4.0 DISCUSSION AND RECOMMENDATIONS

4.1 General

Based on our study, it is our opinion that the site is suitable for the proposed construction from a geotechnical standpoint. Undisturbed bearing surfaces composed of the native medium dense to very dense silty sand soils, or structural fill placed on these soils will provide suitable support for conventional spread footing foundations. Floor slabs and the driveway can be similarly supported. The sites' loose silty sand soils identified at Test Borings B-1 and B-2 will not be suitable for direct support of foundations but can be densified in place by compaction to achieve adequate bearing support.

The silty sand soils contain a sufficient percentage of fines (silt- and clay-sized particles) such that they will be difficult to compact as structural fill when too wet or too dry. If earthwork activities will take place during the winter season, the owner should be prepared to import free-draining granular material for use as structural fill and backfill.

Detailed recommendations regarding these issues and other geotechnical design considerations are provided in the following sections of this report. These recommendations should be incorporated into the final design drawings and construction specifications.

4.2 Site Preparation and Grading

To prepare the site for construction, all vegetation, organic surface soils, and demolition debris should be removed from areas of planned construction. Soils containing organic material will not be suitable for use as structural fill but may be used for limited depths in nonstructural areas. Stripping depths of up to six inches should be expected. We recommend removing all building demolition debris prior to preparing subgrades for new construction. Demolition of existing structures should include removal of existing buried utilities and building foundations. Abandoned utility pipes that exist outside of new building areas can be left in place provided they are sealed to prevent intrusion of groundwater seepage and soil.

To reduce the potential for subgrade disturbance, particularly during wet weather, consideration should be given to placing a four-inch layer of one- to two-inch sized crushed rock or a four-inch layer of lean concrete on completed foundation and slab subgrades to serve as a working surface.

Undisturbed surfaces of the site's medium dense to very dense silty sand soils, or structural fill placed on these soils will be suitable for support of building foundations, slabs, and pavements. As discussed above, where loose soils such as those identified at the locations of Borings B-1 and B-2 are observed in footing excavations, we recommend that these soils be densified in place by compaction to establish adequate foundation subgrade support. In general, 12 inches of scarification and recompaction should be sufficient to achieve suitable bearing.

All exposed bearing surfaces should be observed by a representative of Terra Associates, Inc. to verify soil conditions are as expected and suitable for support of building elements or new structural fill. Depending on the weather conditions, moisture conditioning of the silty sands may be required to facilitate compaction and densification in place. If excessively yielding areas are observed and cannot be stabilized in place by compaction, the affected soils should be excavated and removed to firm bearing and grade restored with new structural fill.

Our study indicates that the silty sand soils contain a sufficient percentage of fines (silt and clay size particles) that will make them difficult to compact as structural fill if they are too wet or too dry. The ability to use these soils as structural fill will depend on their moisture content and the prevailing weather conditions when site grading activities take place.

In our opinion, structural fill and backfill imported to the site should consist of a granular soil that meets the following minimum grading requirements:

U.S. Sieve Size	Percent Passing
6 inches	100
No. 4	75 maximum
No. 200	30 maximum* (dry weather) 5 maximum* (wet weather)

* Based on the 3/4-inch fraction.

Prior to use, Terra Associates, Inc. should examine and test all materials imported for use as structural fill.

Structural fill should be placed in horizontal layers not exceeding 12 inches and compacted to a density equal to or greater than 95 percent of its maximum dry density, as determined by ASTM Test Designation D-698 (Standard Proctor). The moisture content of the soil at the time of compaction should be within two percent of its optimum, as determined by this same ASTM standard.

4.3 Excavations

All excavations at the site associated with confined spaces, such as utility trenches, must be completed in accordance with local, state, or federal requirements. Based on current WISHA regulations, the site's loose to medium dense silty sand soils would be classified as Type C soils. Accordingly, for temporary excavations of more than 4 feet and less than 20 feet in depth, the side slopes in Type C soils should be laid back at a slope inclination of 1.5:1 (Horizontal:Vertical) or flatter. The dense to very dense silty sand and sand with silt soils would be classified as Type B soils. For Type B soils, side slopes can be laid back at a slope inclination of 1:1 or flatter.

This information is provided solely for the benefit of the owner and other design consultants and should not be construed to imply that Terra Associates, Inc. assumes responsibility for job site safety. It is understood that job site safety is the sole responsibility of the project contractor.

4.4 Foundations

The buildings may be supported on conventional spread footing foundations bearing on competent native soils or on structural fills placed above these native soils. Foundation subgrades should be prepared as recommended in Section 4.2 of this report. Perimeter foundations exposed to the weather should be at a minimum depth of 18 inches below final exterior grades. Interior foundations can be constructed at any convenient depth below the floor slab.

We recommend designing foundations bearing on competent soil for a net allowable bearing capacity of 2,500 pounds per square foot (psf). For short-term loads, such as wind and seismic, a one-third increase in this allowable capacity can be used in design. With the anticipated loads and this bearing stress applied, building settlements should be less than one-inch total and one-half inch differential.

A base friction coefficient of 0.35 can be used for designing foundations to resist lateral loads. Passive earth pressure acting on the sides of the footings may also be considered. We recommend calculating this lateral resistance using an equivalent fluid weight of 300 pounds per cubic foot (pcf). We recommend not including the upper 12 inches of soil in this computation because they can be affected by weather or disturbed by future grading activity. This value assumes the foundations will be constructed neat against competent native soil or the excavations are backfilled with structural fill, as described in Section 4.2 of this report. The recommended passive and friction values include a safety factor of 1.5.

4.5 Slab-on-Grade Floors

Slab-on-grade floors may be supported on a subgrade prepared as recommended in Section 4.2 of this report. Immediately below the floor slab, we recommend placing a four-inch thick capillary break layer composed of clean, coarse sand or fine gravel that has less than three percent passing the No. 200 sieve. This material will reduce the potential for upward capillary movement of water through the underlying soil and subsequent wetting of the floor slab.

The capillary break layer will not prevent moisture intrusion through the slab caused by water vapor transmission. Where moisture by vapor transmission is undesirable, such as covered floor areas, a common practice is to place a durable plastic membrane on the capillary break layer and then cover the membrane with a layer of clean sand or fine gravel to protect it from damage during construction, and aid in uniform curing of the concrete slab. It should be noted that if the sand or gravel layer overlying the membrane is saturated prior to pouring the slab, it will be ineffective in assisting uniform curing of the slab and can actually serve as a water supply for moisture seeping through the slab that adversely affects floor coverings. Therefore, in our opinion, covering the membrane with a layer of sand or gravel should be avoided if floor slab construction occurs during the wet winter months and the layer cannot be effectively drained.

4.6 Lateral Earth Pressures

The magnitude of earth pressure development on engineered retaining walls will partly depend on the quality of the wall backfill. We recommend placing and compacting wall backfill as structural fill as described in Section 4.2 of this report. To guard against hydrostatic pressure development, wall drainage must also be installed. A typical recommended wall drainage detail is shown on Figure 3.

With wall backfill placed and compacted as recommended, and drainage properly installed, we recommend designing unrestrained walls that support level grades for an active earth pressure equivalent to a fluid weighing 35 pounds per cubic foot (pcf). For restrained walls, an additional uniform load of 100 psf should be added to the 35 pcf. For evaluation of wall performance under seismic loading, a uniform pressure equivalent to $8H$ psf, where H is the height of the below-grade portion of the wall, should be applied in addition to the static lateral earth pressure.

Friction at the base of foundations and passive earth pressure will provide resistance to these lateral loads. Values for these parameters are provided in Section 4.4 of this report

4.7 Drainage

Surface

Final exterior grades should promote free and positive drainage away from the buildings at all times. Water must not be allowed to pond or collect adjacent to foundations or within the immediate building area. We recommend providing a positive drainage gradient away from the building perimeters. If this gradient cannot be provided, surface water should be collected adjacent to the structure and disposed to appropriate storm facilities.

Subsurface

We recommend installing a continuous drain along the outside lower edge of shallow perimeter building foundations. Foundation drains should be tightlined to an approved point of controlled discharge independent of the roof drain system. Subsurface drains must be laid with a gradient sufficient to promote positive flow to the point of discharge. All drains should be provided with cleanouts at easily accessible locations. These cleanouts should be serviced at least once every year.

4.8 Infiltration Feasibility

Across the site, we observed primarily silty sand with gravel, till, and till-like soils. Due to the high soil fines content and degree of consolidation, these soils exhibit relatively low permeability. This would preclude the use of retention facilities for discharge of development stormwater by infiltration at shallow depths at the site. Based on the existing topography of the site, it is our opinion that even low impact development (LID) techniques would not be suitable for the site as the stormwater would likely mound up in the facilities and cause minor local flooding to occur during rain events. Based on our observations, it is our opinion, that the site stormwater should be collected and controlled using conventional stormwater techniques.

4.9 Utilities

Utility pipes should be bedded and backfilled in accordance with American Public Works Association (APWA) or the City of Shoreline specifications. As a minimum, trench backfill should be placed and compacted as structural fill, as described in Section 4.2 of this report. As noted, depending on the soil moisture when excavated most inorganic native soils on the site should be suitable for use as backfill material during dry weather conditions. The contractor should be prepared to aerate soils to reduce moisture and facilitate proper compaction. However, if utility construction takes place during the wet winter months, it will likely be necessary to import suitable wet weather fill for utility trench backfilling.

4.10 Pavements

Drive aisle pavement subgrades should be prepared as described in the Section 4.2 of this report. Regardless of the degree of relative compaction achieved, the subgrade must be firm and relatively unyielding before paving. The subgrade should be proofrolled with heavy rubber-tire construction equipment such as a loaded 10-yard dump truck to verify this condition.

The pavement design section is dependent upon the supporting capability of the subgrade soils and the traffic conditions to which it will be subjected. For residential access, with traffic consisting mainly of light passenger vehicles with only occasional heavy traffic, and with a stable subgrade prepared as recommended, we recommend the following pavement section options:

- Two inches of hot mix asphalt (HMA) over four inches of crushed rock base (CRB)
- Full depth HMA – 3 ½ inches

The paving materials used should conform to the Washington State Department of Transportation (WSDOT) specifications for ½-inch class HMA and CRB.

Long-term pavement performance will depend on surface drainage. A poorly-drained pavement section will be subject to premature failure as a result of surface water infiltrating into the subgrade soils and reducing their supporting capability. For optimum pavement performance, we recommend surface drainage gradients of at least two percent. Some degree of longitudinal and transverse cracking of the pavement surface should be expected over time. Regular maintenance should be planned to seal cracks when they occur.

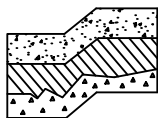
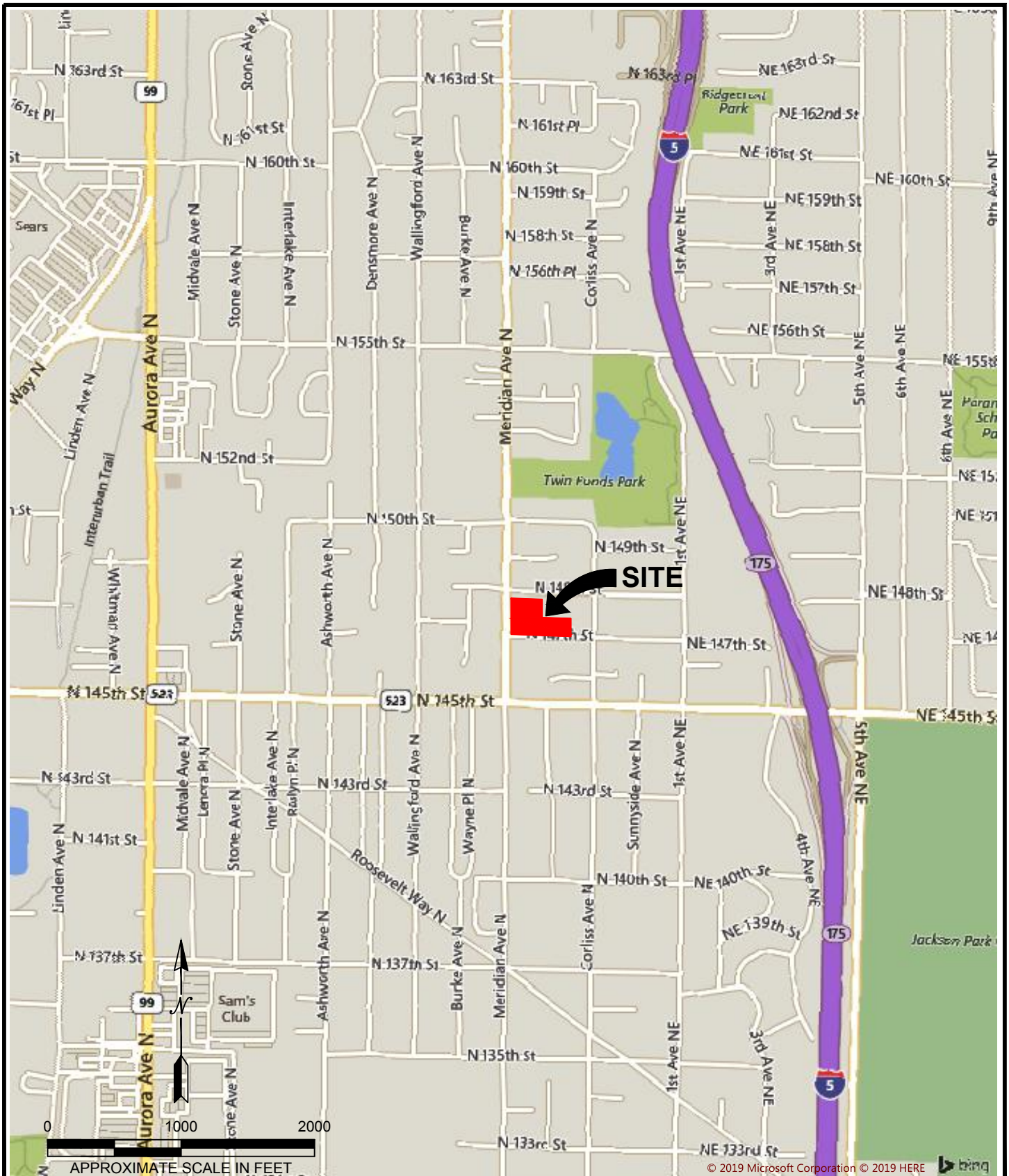
5.0 ADDITIONAL SERVICES

Terra Associates, Inc. should review the final designs and specifications to verify that earthwork and foundation recommendations have been properly interpreted and implemented in project design. We should also provide geotechnical services during construction to observe compliance with our design concepts, specifications, and recommendations. This will allow for design changes if subsurface conditions differ from those anticipated prior to the start of construction.

6.0 LIMITATIONS

We prepared this report in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made. This report is the copyrighted property of Terra Associates, Inc. and is intended for specific application to the 5 Degrees project in Shoreline, Washington. This report is for the exclusive use of Pulte Homes of Washington, Inc. and their authorized representatives. No other warranty, expressed or implied, is made.

The analyses and recommendations presented in this report are based on data obtained from the test pits excavated at the site. Variations in soil conditions can occur, the nature and extent of which may not become evident until construction. If variations appear evident, Terra Associates, Inc. should be requested to reevaluate the recommendations in this report, prior to proceeding with construction.



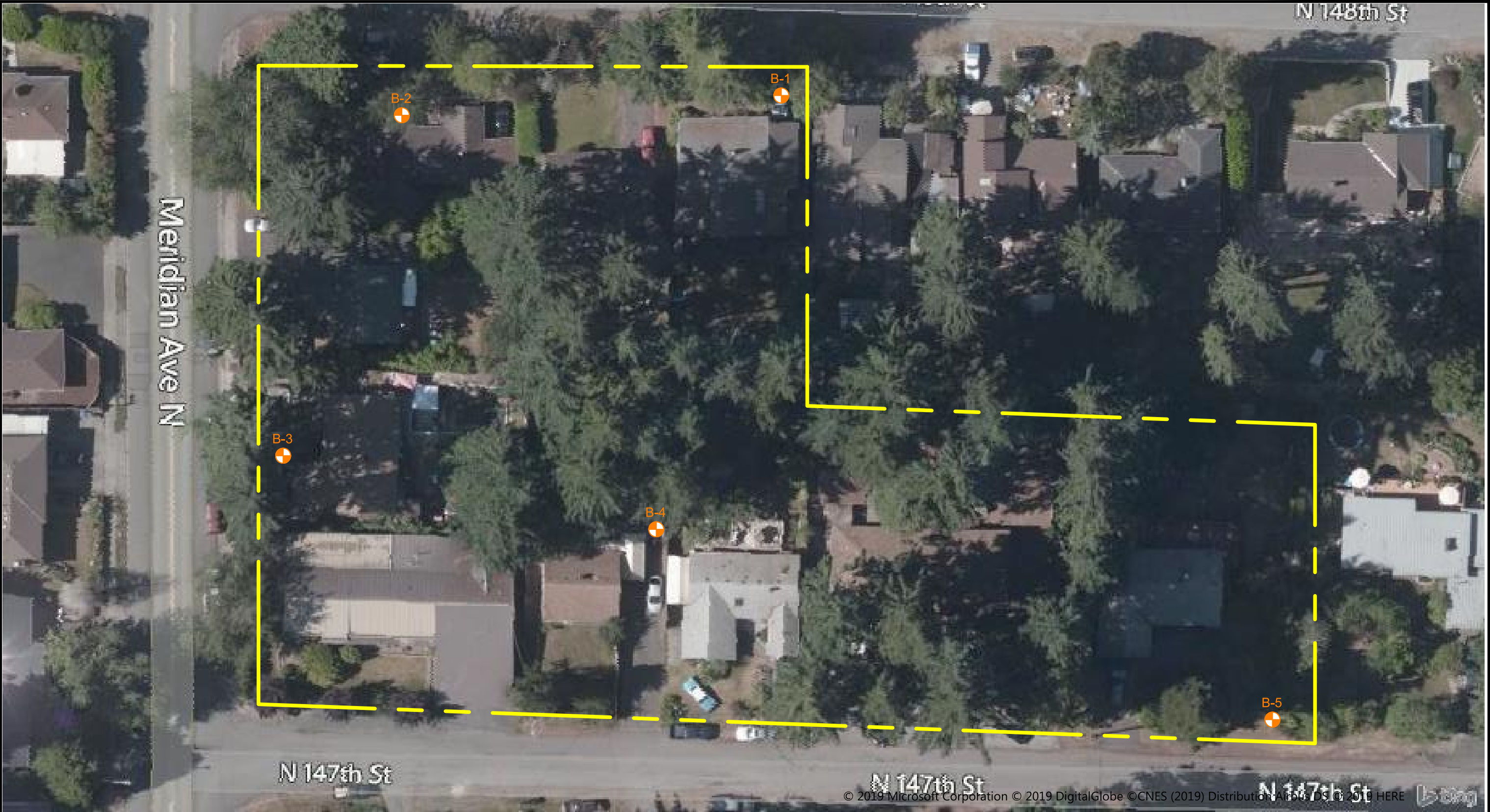
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VICINITY MAP
5 DEGREES
SHORELINE, WASHINGTON

Proj.No. T-8268

Date: DEC 2019

Figure 1




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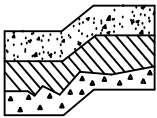
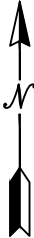
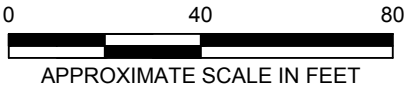
NOTE:

THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

REFERENCE: SITE PLAN PROVIDED BY <https://www.bing.com/maps>

LEGEND:

 APPROXIMATE BORING LOCATION



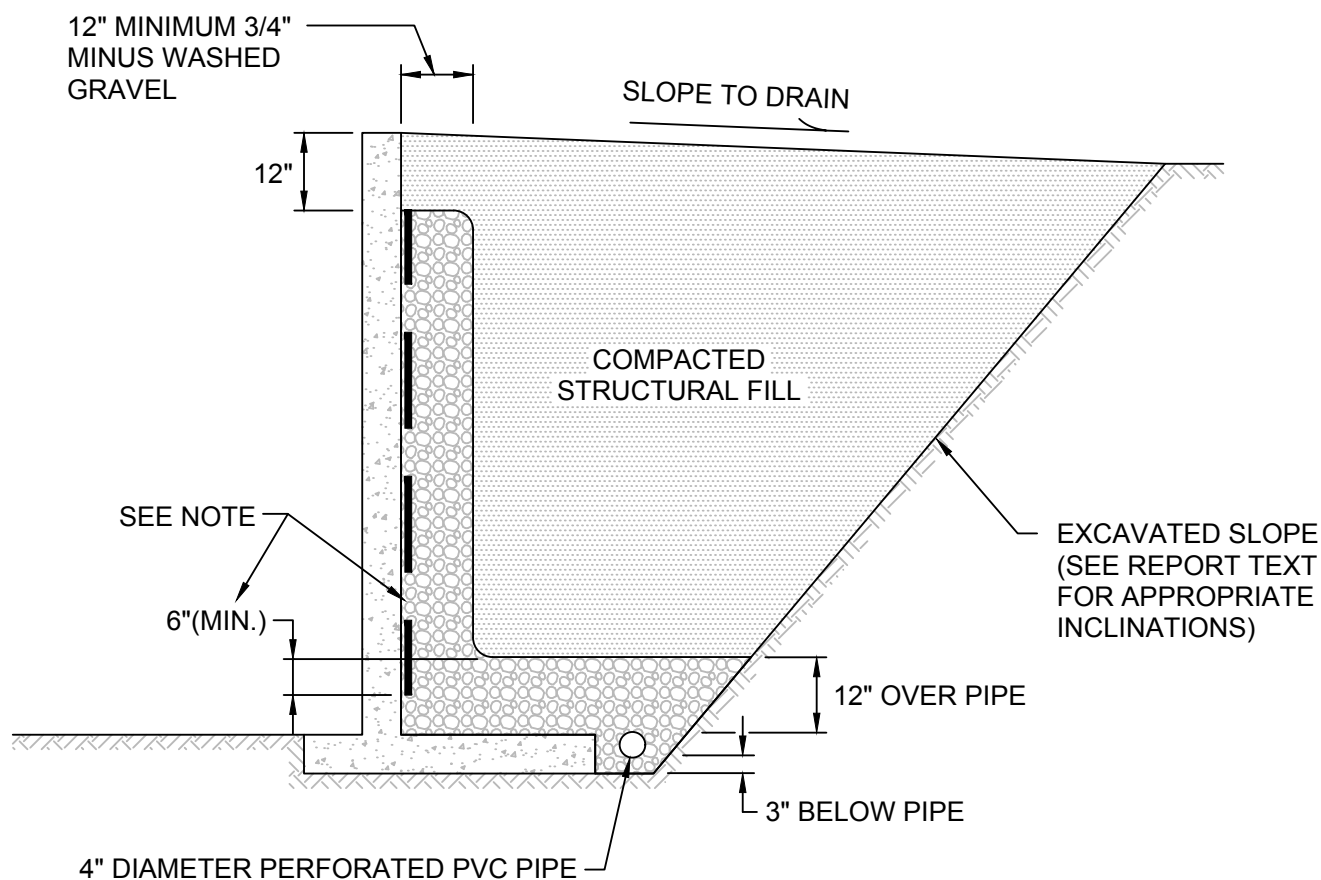
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EXPLORATION LOCATION PLAN
5 DEGREES
SHORELINE, WASHINGTON

Proj.No. T-8268

Date: DEC 2019

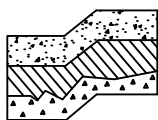
Figure 2



NOT TO SCALE

NOTE:

MIRADRAIN G100N PREFABRICATED DRAINAGE PANELS OR SIMILAR PRODUCT CAN BE SUBSTITUTED FOR THE 12-INCH WIDE GRAVEL DRAIN BEHIND WALL. DRAINAGE PANELS SHOULD EXTEND A MINIMUM OF SIX INCHES INTO 12-INCH THICK DRAINAGE GRAVEL LAYER OVER PERFORATED DRAIN PIPE.



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TYPICAL WALL DRAINAGE DETAIL
5 DEGREES
SHORELINE, WASHINGTON

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Date: DEC 2019

Figure 3

**APPENDIX A
FIELD EXPLORATION AND LABORATORY TESTING**

**5 Degrees
Shoreline, Washington**

On November 27, 2019, we explored subsurface conditions at the site by drilling 5 test borings to depths of 15.5 and 16.5 feet below existing grades using a track-mounted drill rig. The test boring locations were approximately determined in the field by measuring from existing site features. The approximate test boring locations are shown on the attached Exploration Location Plan, Figure 2. Test Boring Logs are attached as Figures A-2 through A-6.




A geologist from our office conducted the field exploration. Our representative classified the soil conditions encountered, maintained a log of each hand hole, obtained representative soil samples, and recorded water levels observed during excavation. During drilling, soil samples were obtained in general accordance with ASTM Test Designation D-1586. Using this procedure, a 2-inch (outside diameter) split barrel sampler is driven into the ground 18 inches using a 140-pound hammer free falling a height of 30 inches. The number of blows required to drive the sampler 12 inches after an initial 6-inch set is referred to as the Standard Penetration Resistance value or N value. This is an index related to the consistency of cohesive soils and relative density of cohesionless materials. N values obtained for each sampling interval are recorded on the Test Boring Logs, Figures A-2 through A-6. All soil samples were visually classified in accordance with the Unified Soil Classification System (USCS) described on Figure A-1.

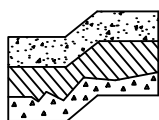
Representative soil samples collected from the test pits were placed in closed containers and taken to our laboratory for further examination and testing. Laboratory testing consisted of determining the soil moisture content of all samples and grain size distribution analyses of eight soil samples. The soil moistures are reported on the Test Boring Logs. The grain size distribution test results are shown on Figures A-7 through A-9.

Attachment B

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTION
COARSE GRAINED SOILS More than 50% material larger than No. 200 sieve size	GRAVELS More than 50% of coarse fraction is larger than No. 4 sieve	Clean Gravels (less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines.
		Gravels with fines	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS More than 50% of coarse fraction is smaller than No. 4 sieve	Clean Sands (less than 5% fines)	SW	Well-graded sands, sands with gravel, little or no fines.
			SP	Poorly-graded sands, sands with gravel, little or no fines.
		Sands with fines	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS More than 50% material smaller than No. 200 sieve size	SILTS AND CLAYS Liquid Limit is less than 50%		ML	Inorganic silts, rock flour, clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity. (Lean clay)
			OL	Organic silts and organic clays of low plasticity.
	SILTS AND CLAYS Liquid Limit is greater than 50%		MH	Inorganic silts, elastic.
			CH	Inorganic clays of high plasticity. (Fat clay)
			OH	Organic clays of high plasticity.
	HIGHLY ORGANIC SOILS			PT

DEFINITION OF TERMS AND SYMBOLS

COHESIONLESS	<u>Density</u>	<u>Standard Penetration Resistance in Blows/Foot</u>	 2" OUTSIDE DIAMETER SPILT SPOON SAMPLER  2.4" INSIDE DIAMETER RING SAMPLER OR SHELBY TUBE SAMPLER  WATER LEVEL (Date) Tr TORVANE READINGS, tsf
	Very Loose Loose Medium Dense Dense Very Dense	0-4 4-10 10-30 30-50 >50	
COHESIVE	<u>Consistency</u>	<u>Standard Penetration Resistance in Blows/Foot</u>	Pp PENETROMETER READING, tsf DD DRY DENSITY, pounds per cubic foot LL LIQUID LIMIT, percent PI PLASTIC INDEX N STANDARD PENETRATION, blows per foot
	Very Soft Soft Medium Stiff Stiff Very Stiff Hard	0-2 2-4 4-8 8-16 16-32 >32	



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UNIFIED SOIL CLASSIFICATION SYSTEM
5 DEGREES
SHORELINE, WASHINGTON

Proj.No. T-8268

Date: DEC 2019

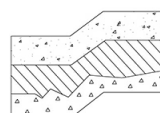
Figure A-1

LOG OF BORING NO. B-1Project: 5 Degrees Project No: T-8268 Date Drilled: November 27, 2019Client: Pulte Driller: Borettec Logged By: EHELocation: Shoreline, Washington Depth to Groundwater: N/A Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(6 inches TOPSOIL and ORGANICS)					
		FILL(?): Gray to brown silty SAND with gravel, fine sand, fine to medium gravel, dry to moist, minor organics. (SM)	Loose				
5		Gray to tan silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SM)					
10			Very Dense				
		Gray to tan SAND with silt and gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SP-SM)					
15		Gray to tan silty SAND with trace gravel, fine to medium sand, fine to medium gravel, dry to moist. (SM)	Dense				
		Boring terminated at 16.5 feet. No groundwater encountered.					
20							

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

8a-262



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LOG OF BORING NO. B-2

Project: 5 Degrees **Project No:** T-8268 **Date Drilled:** November 27, 2019

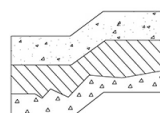
Client: Pulte **Driller:** Borettec **Logged By:** EHE

Location: Shoreline, Washington **Depth to Groundwater:** N/A **Approx. Elev:** N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(6 inches TOPSOIL and ORGANICS)					
		FILL(?): Gray to brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, moist, minor organics. (SM)	Medium Dense				
5			Loose				
		Gray to tan SAND with silt and gravel, fine to coarse sand, fine to coarse gravel, moist. (SP-SM)	Dense				
10							
15		Gray to tan SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SP)	Very Dense				
20		Boring terminated at 16.5 feet. No groundwater encountered.					

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

8a-263



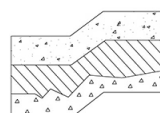
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LOG OF BORING NO. B-3Project: 5 Degrees Project No: T-8268 Date Drilled: November 27, 2019Client: Pulte Driller: Borettec Logged By: EHELocation: Shoreline, Washington Depth to Groundwater: N/A Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(6 inches TOPSOIL and ORGANICS)					
		Tan to dark brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SM)	Medium Dense				
5		Brown to dark brown silty SAND, fine to medium sand, moist, some gravel. (SM)	Very Dense				
		Gray to tan silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SM)					
10		Gray to tan SAND with silt and gravel, fine sand, gravel, dry to moist. (SP-SM)	Dense				
15			Very Dense				
		Boring terminated at 15.5 feet. No groundwater seepage encountered.					
20							

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

8a-264



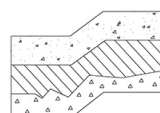
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LOG OF BORING NO. B-4Project: 5 Degrees Project No: T-8268 Date Drilled: November 27, 2019Client: Pulte Driller: Borettec Logged By: EHELocation: Shoreline, Washington Depth to Groundwater: N/A Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(3 inches ASPHALT)					
		Gray to tan silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SM)	Dense				
5			Very Dense				
10			Dense				
15		Brown-gray SAND with silt and gravel, fine to medium sand, moist. (SP-SM)	Very Dense				
		Boring terminated at 16.5 feet. No groundwater encountered.					
20							

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

8a-265



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LOG OF BORING NO. B-5

Project: 5 Degrees **Project No:** T-8268 **Date Drilled:** November 27, 2019

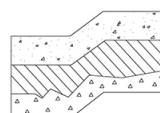
Client: Pulte **Driller:** Borettec **Logged By:** EHE

Location: Shoreline, Washington **Depth to Groundwater:** N/A **Approx. Elev:** N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)
				10	30	50	
0		(6 inches TOPSOIL and ORGANICS)					
		Brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, dry to moist, minor organics. (SM)	Medium Dense		•		29 26.4
5		Gray to tan silty SAND with some gravel, fine to coarse sand, fine to medium gravel, moist. (SM)	Dense		•		37 8.3
		Gray to tan SAND with silt and gravel, fine to medium sand, fine to coarse gravel, dry to moist. (SP-SM)			•		31 4.6
10		Gray to tan silty SAND, fine sand, dry to moist, trace gravel. (SM)	Medium Dense		•		29 11.7
		Gray to tan SAND with gravel, fine to medium sand, fine gravel, dry to moist. (SP)	Very Dense			•	54 3.8
15						•	89 7.4
		Boring terminated at 16.5 feet. No groundwater encountered.					
20							

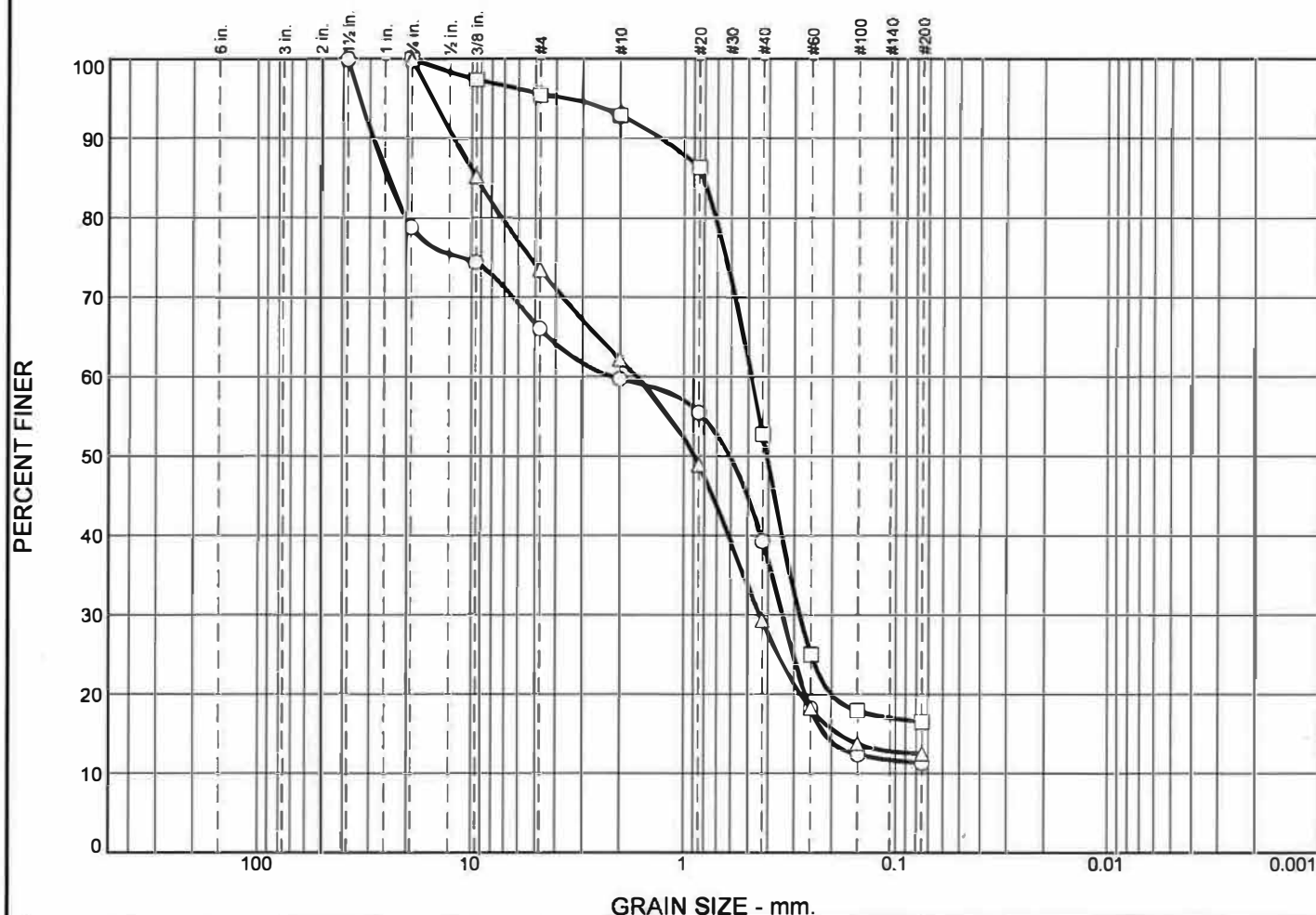
NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

8a-266



**Terra
Associates, Inc.**
Consultants in Geotechnical Engineering
Geology and
Environmental Earth Sciences

Particle Size Distribution Report



	% +3"		% Gravel		% Sand			% Fines		
			Coarse	Fine	Coarse	Medium	Fine	Silt		Clay
○	0.0		21.1	12.8	6.4	20.4	28.0	11.3		
□	0.0		0.0	4.5	2.6	40.2	36.2	16.5		
△	0.0		0.0	26.5	11.3	32.9	16.8	12.5		
⊗	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			24.7012	2.1718	0.6075	0.3407	0.2141			
□			0.8144	0.4807	0.4064	0.2835				
△			9.4269	1.6612	0.8914	0.4361	0.1834			

Material Description								USCS	AASHTO
○ SAND with silt								SP-SM	
□ Silty SAND								SM	
△ Silty SAND								SM	

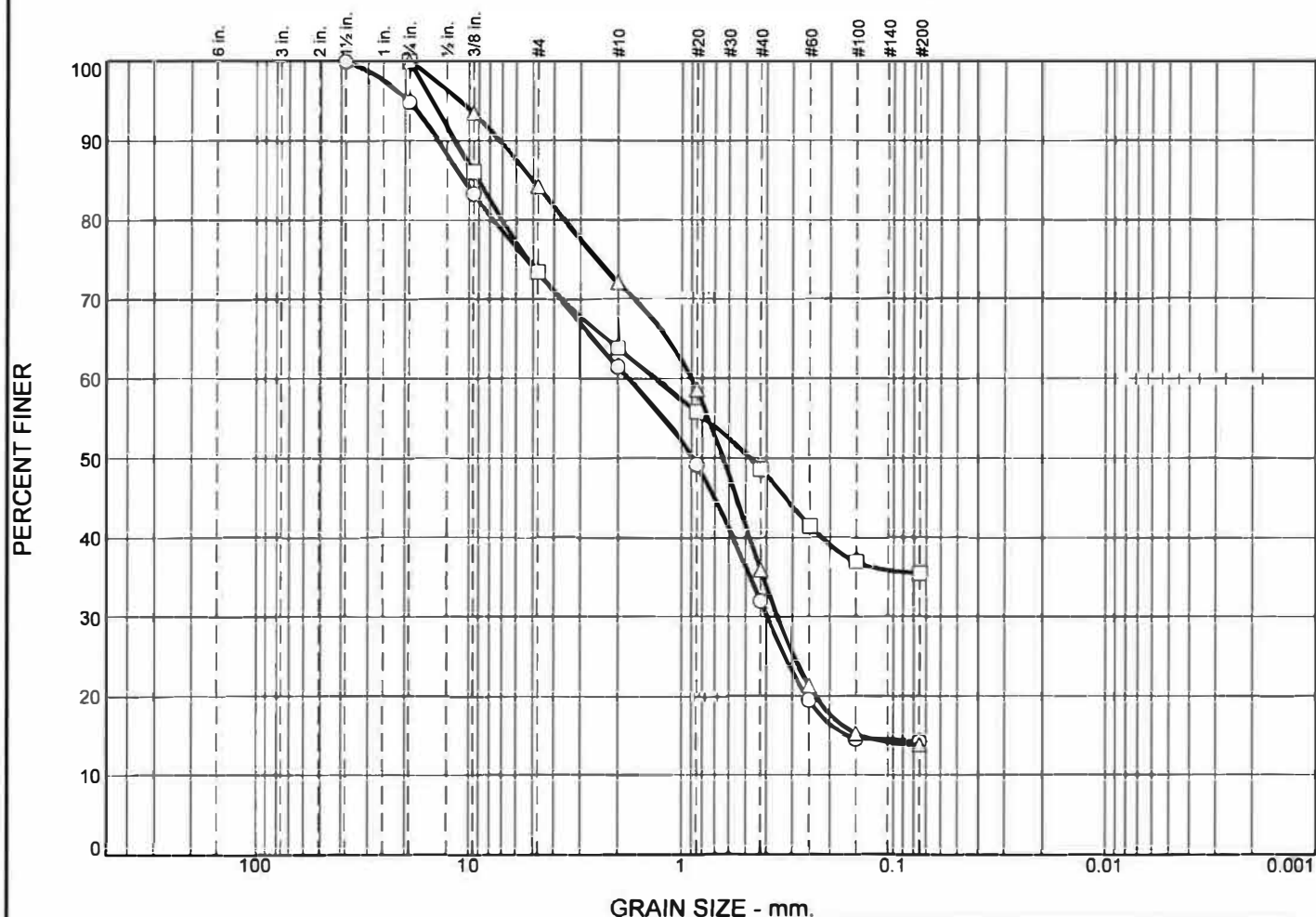
Project No. T-8268		Client: Pulte Homes of Washington		Remarks:
Project: 5 Degrees				
○ Location: B-1	Depth: -12.5 feet			
□ Location: B-1	Depth: -15 feet			
△ Location: B-2	Depth: -5 feet			
Terra Associates, Inc.				
Kirkland, WA				

Figure A-7

Figure A-7

Tested By: FQ

Particle Size Distribution Report



	% +3"		% Gravel		% Sand			% Fines		
			Coarse	Fine	Coarse	Medium	Fine	Silt		Clay
○	0.0		5.2	21.4	11.9	29.5	17.7	14.3		
□	0.0		0.0	26.6	9.5	15.2	13.2	35.5		
△	0.0		0.0	15.8	12.1	36.2	22.0	13.9		
⊗	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			10.5249	1.7735	0.8857	0.3945	0.1635			
□			9.0586	1.3258	0.4730					
△			5.0206	0.8997	0.6388	0.3532	0.1418			

Material Description								USCS	AASHTO
○ Silty SAND								SM	
□ Silty SAND with gravel								SM	
△ Silty SAND								SM	

Project No. T-8268		Client: Pulte Homes of Washington		Remarks:
Project: 5 Degrees				
<input type="radio"/>	Location: B-3	Depth: -7.5		
<input type="checkbox"/>	Location: B-4	Depth: -5 feet		
<input type="checkbox"/>	Location: B-4	Depth: -10 feet		
Terra Associates, Inc.				Figure A-8
Kirkland, WA				

Tested By: FQ

PERCENT FINER

O**Project No. T-8268**

Client: Pulte Homes of Washington

Project: 5 Degrees

Remarks:

○ **Location:** B-5

Depth: -5 feet

☐ **Location:** B-5

Depth: -10 feet

Terra Associates, Inc.

Kirkland, WA

Figure A-9

Tested By: FQ_____

Appendix C

Documentation

Appendix D

Maintenance Plan

Operations & Maintenance Manual

FOR

5 DEGREES

CITY OF SHORELINE IN KING COUNTY, WASHINGTON

Project Manager: Gina R. Brooks, P.E.
Prepared by: Matthew J. Stefansson, E.I.T.
Date: April 9, 2021
Revision Date: August 27, 2021
Core No.: 19133



12100 NE 195th Street, Suite 300
Bothell, Washington 98011
Ph 425.885.7877
www.coredesigninc.com

Stormwater System Description

The stormwater system for this project consists of Type I and Type II catch basins, 12-inch diameter pipes, a detention vault and BioPod Biofilter.

The detention vault will provide flow control for the project and the BioPod Biofilter will provide water quality treatment. The project has two threshold discharge areas (TDAs) that drain to a single discharge point, per city approval.

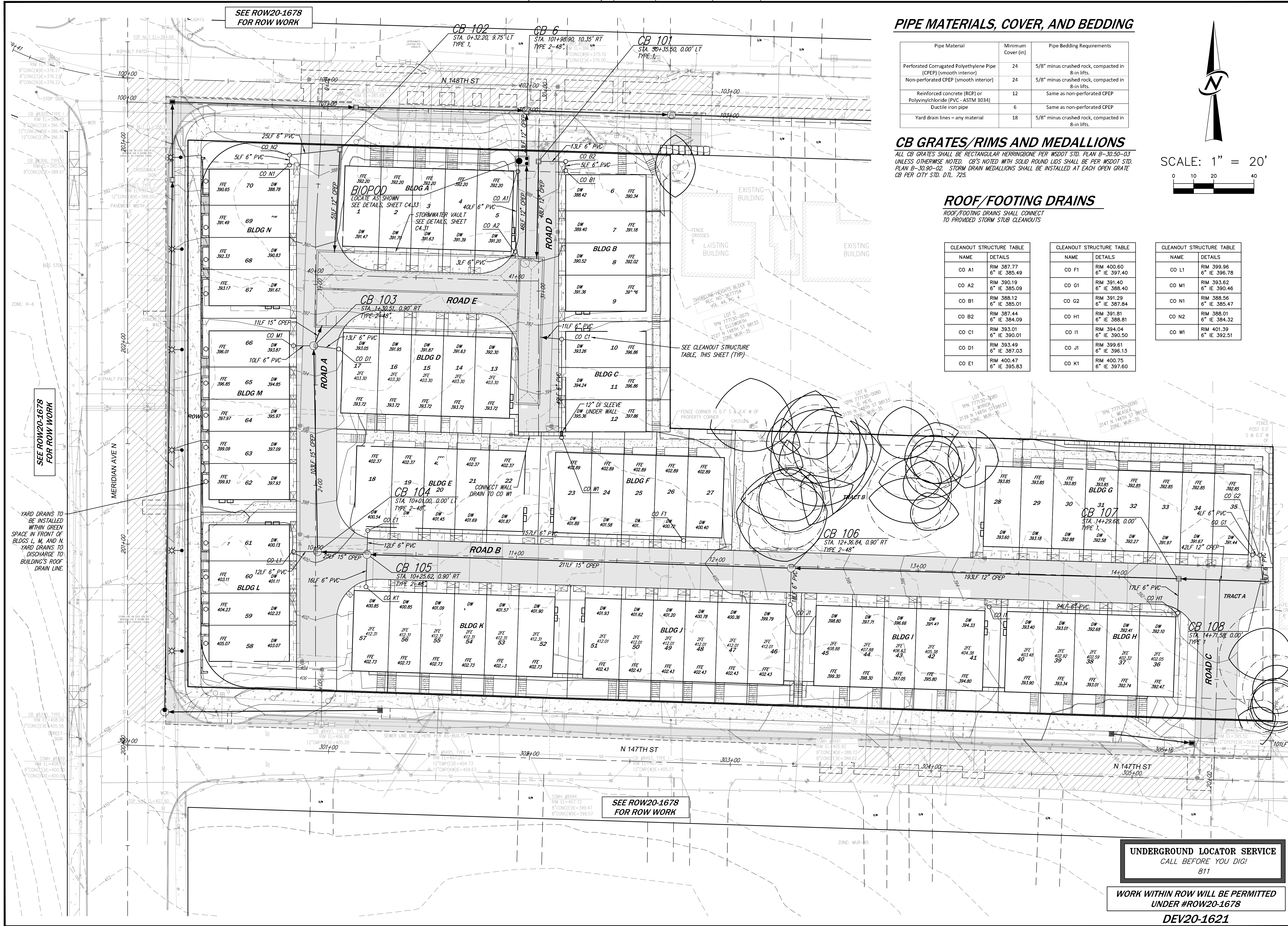
An overall storm drainage plan for the project is provided on the following page showing the location of stormwater system elements.

Maintenance of the stormwater management system and each of its components as described above will be maintained and operated by the future Homeowners Association. See table below.

Table D.1 – Stormwater Facility Maintenance

Stormwater Facility	Responsible Party for maintenance and operation
Detention Vault	Privately owned - HOA
Biopod Biofilter	Privately owned - HOA
Catch Basins	Privately owned - HOA
Conveyance Pipes	Privately owned - HOA

Maintenance information applicable to this project is provided on the following pages from the Washington State Department of Ecology's 2012 Stormwater Management Manual for Western Washington as Amended in 2014. Maintenance information for the BioPod Biofilter is also included on the following pages and has been provided from the manufacturer. The maintenance log shall be maintained and made available for inspection by the City of Shoreline. A Vegetation Management Plan is not applicable for this project as vegetated facilities are not proposed.



PIPE MATERIALS, COVER, AND BEDDING

Pipe Material	Minimum Cover (in)	Pipe Bedding Requirements
Perforated Corrugated Polyethylene Pipe (CPEP) (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Non-perforated CPEP (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Reinforced concrete (RCP) or Polyvinylchloride (PVC - ASTM 3034)	12	Same as non-perforated CPEP
Ductile iron pipe	6	Same as non-perforated CPEP
Yard drain lines - any material	18	5/8" minus crushed rock, compacted in 8-in lifts.

CB GRATES/RIMS AND MEDALLIONS

ALL CB GRATES SHALL BE RECTANGULAR HERRINGBONE PER WSDOT STD. PLAN B-30.50-03 UNLESS OTHERWISE NOTED. CB'S NOTED WITH SOLID ROUND LIDS SHALL BE PER WSDOT STD. PLAN B-30.90-02. STORM DRAIN MEDALLIONS SHALL BE INSTALLED AT EACH OPEN GRATE CB PER CITY STD. DTL. 723.

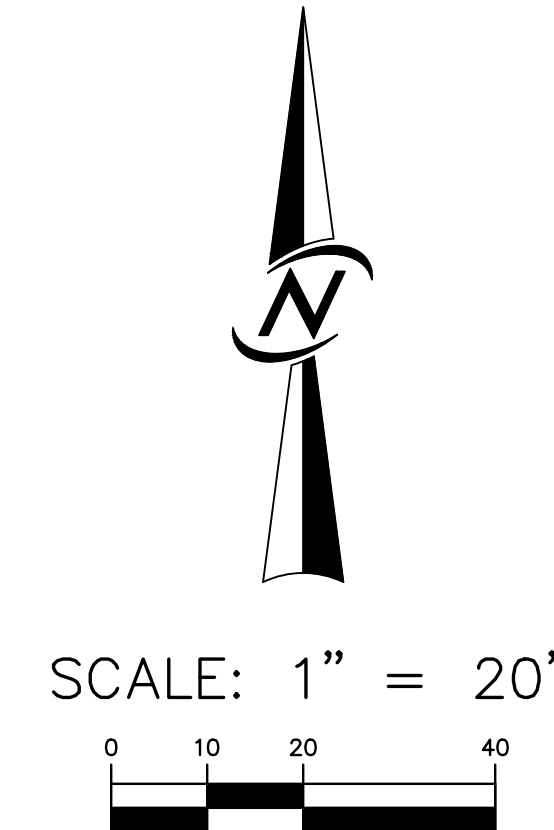
ROOF/FOOTING DRAINS

ROOF/FOOTING DRAINS SHALL CONNECT TO PROVIDED STORM STUB CLEANOUTS

CLEANOUT STRUCTURE TABLE	
NAME	DETAILS
CO A1	RIM 387.77 6" IE 385.49
CO A2	RIM 390.19 6" IE 385.09
CO B1	RIM 388.12 6" IE 385.01
CO B2	RIM 387.44 6" IE 384.09
CO C1	RIM 393.01 6" IE 390.01
CO D1	RIM 393.49 6" IE 387.03
CO E1	RIM 400.47 6" IE 395.83

CLEANOUT STRUCTURE TABLE	
NAME	DETAILS
CO F1	RIM 400.60
	6" IE 397.40
CO G1	RIM 391.40
	6" IE 388.40
CO G2	RIM 391.29
	6" IE 387.84
CO H1	RIM 391.81
	6" IE 388.81
CO I1	RIM 394.04
	6" IE 390.50
CO J1	RIM 399.61
	6" IE 396.13
CO K1	RIM 400.75
	6" IE 397.60

CLEANOUT STRUCTURE TABLE	
NAME	DETAILS
CO L1	RIM 399.96 6" IE 396.78
CO M1	RIM 393.62 6" IE 390.46
CO N1	RIM 388.56 6" IE 385.47
CO N2	RIM 388.01 6" IE 384.32
CO W1	RIM 401.39 6" IE 392.51



DATE: 4/21/21
DESIGNED: GINA R. BROOKS, P.E.
DRAWN: MARY MOORE
APPROVED: GINA R. BROOKS, P.E.
PROJECT MANAGER: GINA R. BROOKS, P.E.

SEE STAMP DATE

SHEET: C4.01

PROJECT NUMBER: 19133

STORM DRAINAGE PLAN
5 DEGREES

PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #400
BELLEVUE, WA 98006

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

CORE DESIGN

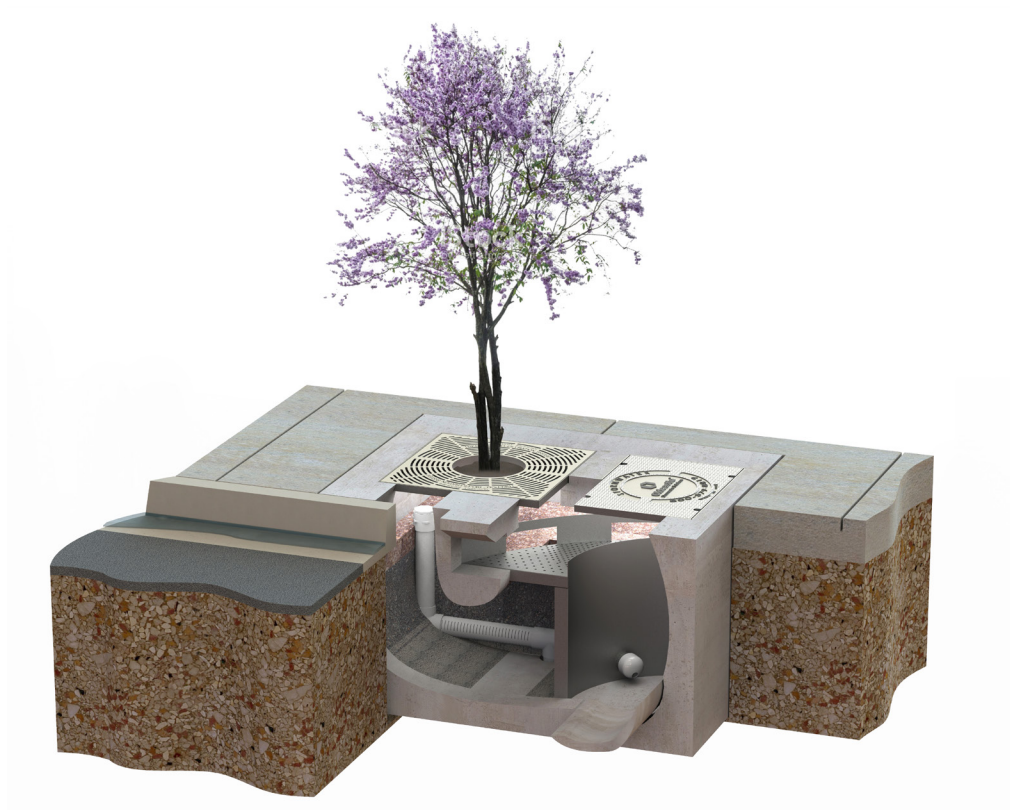
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877



BIOPOD™ SYSTEM

WITH STORMMIX™ MEDIA

Inspection and Maintenance Guide



BioPod™ Biofilter with StormMix™ Biofiltration Media

Description

The BioPod™ Biofilter System (BioPod) is a stormwater biofiltration treatment system used to remove pollutants from stormwater runoff. Impervious surfaces and other urban and suburban landscapes generate a variety of contaminants that can enter stormwater and pollute downstream receiving waters unless treatment is provided. The BioPod system uses proprietary StormMix™ biofiltration media to capture and retain pollutants including total suspended solids (TSS), metals, nutrients, gross solids, trash and debris as well as petroleum hydrocarbons.

Function

The BioPod system uses engineered, high-flow rate filter media to remove stormwater pollutants, allowing for a smaller footprint than conventional bioretention systems. Contained within a compact precast concrete vault, the BioPod system consists of a biofiltration chamber and an optional integrated high-flow bypass with a contoured inlet rack to minimize scour. The biofiltration chamber is filled with horizontal layers of aggregate (which may or may not include an underdrain), biofiltration media and mulch. Stormwater passes vertically down through the mulch and biofiltration media for treatment. The mulch provides pretreatment by retaining most of the solids or sediment. The biofiltration media provides further treatment by retaining finer sediment and dissolved pollutants. The aggregate allows the media bed to drain evenly for discharge through an underdrain pipe or by infiltration.

Configuration

The BioPod system can be configured with either an internal or external bypass. The internal bypass allows both water quality and bypass flows to enter the treatment vault. The water quality flows are directed to the biofiltration chamber while the excess flows are diverted over the bypass weir without entering the biofiltration chamber. Both the treatment and bypass flows are combined in the outlet area prior to discharge from the structure. BioPod units without an internal bypass are designed such that only treatment flows enter the treatment structure. When the system has exceeded its treatment capacity, ponding will force bypass flows to continue down the gutter to the nearest standard catch basin or other external bypass structure.

The BioPod system can be configured as a tree box filter with tree and grated inlet, as a planter box filter with shrubs, grasses and an open top, or as an underground filter with access risers, doors and a subsurface inlet pipe. The optional internal bypass may be incorporated with any of these configurations. In addition, an open bottom configuration may be used to promote infiltration and groundwater recharge. The configuration and size of the BioPod system is designed to meet the requirements of a specific project.

Inspection & Maintenance Overview

State and local regulations require all stormwater management systems to be inspected on a regular basis and maintained as necessary to ensure performance and protect downstream receiving waters. Without maintenance, excessive pollutant buildup can limit system performance by reducing the operating capacity of the system and increasing the potential for scouring of pollutants during periods of high flow.

Some configurations of the BioPod may require periodic irrigation to establish and maintain vegetation. Vegetation will typically become established about two years after planting. Irrigation requirements are ultimately dependent on climate, rainfall and the type of vegetation selected.

Maintenance Frequency

Periodic inspection is essential for consistent system performance and is easily completed. Inspection is typically conducted a minimum of twice per year, but since pollutant transport and deposition varies from site to site, a site-specific maintenance frequency should be established during the first two or three years of operation.

Inspection Equipment

The following equipment is helpful when conducting BioPod inspections:

- Recording device (pen and paper form, voice recorder, iPad, etc.)
- Suitable clothing (appropriate footwear, gloves, hardhat, safety glasses, etc.)
- Traffic control equipment (cones, barricades, signage, flagging, etc.)
- Manhole hook or pry bar
- Flashlight
- Tape measure

Inspection Procedures

BioPod inspections are visual and are conducted without entering the unit. To complete an inspection, safety measures including traffic control should be deployed before the access covers or tree grates are removed. Once the covers have been removed, the following items should be checked and recorded (see form provided on page 6) to determine whether maintenance is required:

- If the BioPod unit is equipped with an internal bypass, inspect the contoured inlet rack and outlet chamber and note whether there are any broken or missing parts. In the unlikely event that internal parts are broken or missing, contact Oldcastle Stormwater at (800) 579-8819 to determine appropriate corrective action.
- Note whether the curb inlet, inlet pipe, or – if the unit is equipped with an internal bypass – the inlet rack is blocked or obstructed.
- If the unit is equipped with an internal bypass, observe, quantify and record the accumulation of trash and debris in the inlet rack. The significance of accumulated trash and debris is a matter of judgment. Often, much of the trash and debris may be removed manually at the time of inspection if a separate maintenance visit is not yet warranted.
- If it has not rained within the past 24 hours, note whether standing water is observed in the biofiltration chamber.
- Finally, observe, quantify and record presence of invasive vegetation and the amount of trash and debris and sediment load in the biofiltration chamber. Erosion of the mulch and biofiltration media bed should also be recorded. Sediment load may be rated light, medium or heavy depending on the conditions. Loading characteristics may be determined as follows:
 - o Light sediment load – sediment is difficult to distinguish among the mulch fibers at the top of the mulch layer; the mulch appears almost new.
 - o Medium sediment load – sediment accumulation is apparent and may be concentrated in some areas; probing the mulch layer reveals lighter sediment loads under the top 1" of mulch.
 - o Heavy sediment load – sediment is readily apparent across the entire top of the mulch layer; individual mulch fibers are difficult to distinguish; probing the mulch layer reveals heavy sediment load under the top 1" of mulch.

Often, much of the invasive vegetation and trash and debris may be removed manually at the time of inspection if a separate maintenance visit is not yet warranted.

Maintenance Indicators

Maintenance should be scheduled if any of the following conditions are identified during inspection:

- The concrete structure is damaged or the tree grate or access cover is damaged or missing.
- The curb inlet or inlet rack is obstructed.
- Standing water is observed in the biofiltration chamber more than 24 hours after a rainfall event (use discretion if the BioPod is located downstream of a storage system that attenuates flow).
- Trash and debris in the inlet rack cannot be easily removed at the time of inspection.
- Trash and debris, invasive vegetation or sediment load in the biofiltration chamber is heavy or excessive erosion has occurred.

Maintenance Equipment

The following equipment is helpful when conducting BioPod maintenance:

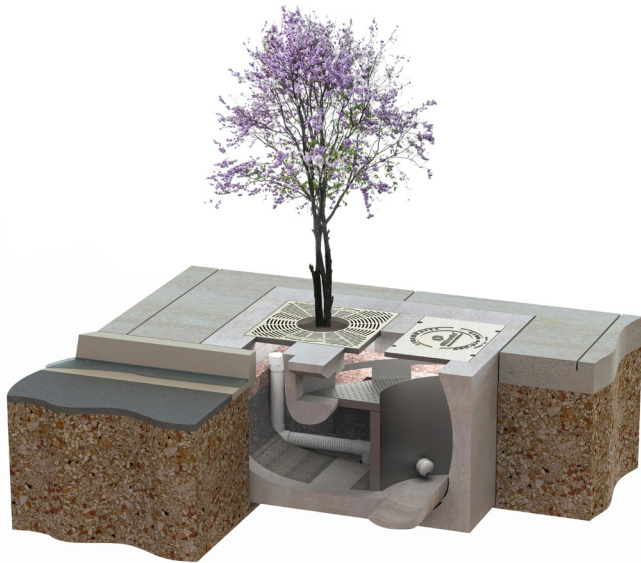
- Suitable clothing (appropriate footwear, gloves, hardhat, safety glasses, etc.)
- Traffic control equipment (cones, barricades, signage, flagging, etc.)
- Manhole hook or pry bar
- Flashlight
- Tape measure
- Rake, hoe, shovel and broom
- Bucket
- Pruners
- Vacuum truck (optional)

Maintenance Procedures

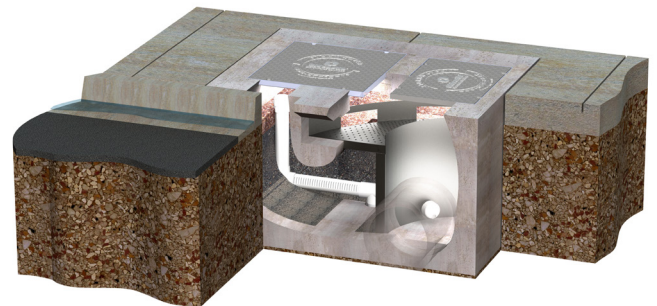
Maintenance should be conducted during dry weather when no flows are entering the system. All maintenance may be conducted without entering the BioPod structure. Once safety measures such as traffic control are deployed, the access covers may be removed and the following activities may be conducted to complete maintenance:

- Remove all trash and debris from the curb inlet and inlet rack manually or by using a vacuum truck as required.
- Remove all trash and debris and invasive vegetation from the biofiltration chamber manually or by using a vacuum truck as required.
- If the sediment load is medium or light but erosion of the biofiltration media bed is evident, redistribute the mulch with a rake or replace missing mulch as appropriate. If erosion persists, rocks may be placed in the eroded area to help dissipate energy and prevent recurring erosion.
- If the sediment load is heavy, remove the mulch layer using a hoe, rake, shovel and bucket, or by using a vacuum truck as required. If the sediment load is particularly heavy, inspect the surface of the biofiltration media once the mulch has been removed. If the media appears clogged with sediment, remove and replace one or two inches of biofiltration media prior to replacing the mulch layer.
- Prune vegetation as appropriate and replace damaged or dead plants as required.
- Replace the tree grate and/or access covers and sweep the area around the BioPod to leave the site clean.
- All material removed from the BioPod during maintenance must be disposed of in accordance with local environmental regulations. In most cases, the material may be handled in the same manner as disposal of material removed from sumped catch basins or manholes.

Natural, shredded hardwood mulch should be used in the BioPod. Timely replacement of the mulch layer according to the maintenance indicators described above should protect the biofiltration media below the mulch layer from clogging due to sediment accumulation. However, whenever the mulch is replaced, the BioPod should be visited 24 hours after the next major storm event to ensure that there is no standing water in the biofiltration chamber. Standing water indicates that the biofiltration media below the mulch layer is clogged and must be replaced. Please contact Oldcastle Infrastructure at (800) 579-8819 to purchase the proprietary StormMix™ biofiltration media.



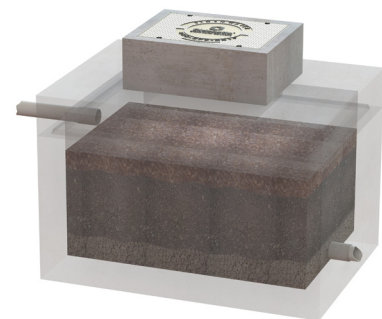
BioPod Tree Module



BioPod Media Module



BioPod Planter Module



BioPod Media Vault

BioPod Inspection & Maintenance Log

BioPod Model_____

Inspection Date_____

Location_____

Condition of Internal Components

Notes:

☐ Good☐ Damaged☐ Missing***Curb Inlet or Inlet Rack Blocked***

Notes:

☐ Yes☐ No***Standing Water in Biofiltration Chamber***

Notes:

☐ Yes☐ No***Trash and Debris in Inlet Rack***

Notes:

☐ Yes☐ No***Trash and Debris in Biofiltration Chamber***

Notes:

☐ Yes☐ No***Invasive Vegetation in Biofiltration Chamber***

Notes:

☐ Yes☐ No***Sediment in Biofiltration Chamber***

Notes:

☐ Light☐ Medium☐ Heavy***Erosion in Biofiltration Chamber***

Notes:

☐ Yes☐ No***Maintenance Requirements***☐ Yes - Schedule Maintenance☐ No - Schedule Re-Inspection

BIOPOD™ SYSTEM

WITH STORMMIX™ MEDIA

OUR MARKETS



**BUILDING
STRUCTURES**



COMMUNICATIONS



WATER



ENERGY



TRANSPORTATION

No. 3 – Closed Detention Systems (Tanks/Vaults)

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is Performed
Storage Area	Plugged Air Vents	One-half of the cross section of a vent is blocked at any point or the vent is damaged.	Vents open and functioning.
	Debris and Sediment	Accumulated sediment depth exceeds 10% of the diameter of the storage area for 1/2 length of storage vault or any point depth exceeds 15% of diameter. (Example: 72-inch storage tank would require cleaning when sediment reaches depth of 7 inches for more than 1/2 length of tank.)	All sediment and debris removed from storage area.
	Joints Between Tank/Pipe Section	Any openings or voids allowing material to be transported into facility. (Will require engineering analysis to determine structural stability).	All joint between tank/pipe sections are sealed.
	Tank Pipe Bent Out of Shape	Any part of tank/pipe is bent out of shape more than 10% of its design shape. (Review required by engineer to determine structural stability).	Tank/pipe repaired or replaced to design.
	Vault Structure Includes Cracks in Wall, Bottom, Damage to Frame and/or Top Slab	Cracks wider than 1/2-inch and any evidence of soil particles entering the structure through the cracks, or maintenance/inspection personnel determines that the vault is not structurally sound. Cracks wider than 1/2-inch at the joint of any inlet/outlet pipe or any evidence of soil particles entering the vault through the walls.	Vault replaced or repaired to design specifications and is structurally sound. No cracks more than 1/4-inch wide at the joint of the inlet/outlet pipe.
Manhole	Cover Not in Place	Cover is missing or only partially in place. Any open manhole requires maintenance.	Manhole is closed.
	Locking Mechanism Not Working	Mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread (may not apply to self-locking lids).	Mechanism opens with proper tools.
	Cover Difficult to Remove	One maintenance person cannot remove lid after applying normal lifting pressure. Intent is to keep cover from sealing off access to maintenance.	Cover can be removed and reinstalled by one maintenance person.
	Ladder Rungs Unsafe	Ladder is unsafe due to missing rungs, misalignment, not securely attached to structure wall, rust, or cracks.	Ladder meets design standards. Allows maintenance person safe access.
Catch Basins	See "Catch Basins" (No. 5)	See "Catch Basins" (No. 5).	See "Catch Basins" (No. 5).

No. 4 – Control Structure/Flow Restrictor

Maintenance Component	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
General	Trash and Debris (Includes Sediment)	Material exceeds 25% of sump depth or 1 foot below orifice plate.	Control structure orifice is not blocked. All trash and debris removed.
	Structural Damage	Structure is not securely attached to manhole wall.	Structure securely attached to wall and outlet pipe.
		Structure is not in upright position (allow up to 10% from plumb).	Structure in correct position.
		Connections to outlet pipe are not watertight and show signs of rust.	Connections to outlet pipe are water tight; structure repaired or replaced and works as designed.
		Any holes--other than designed holes--in the structure.	Structure has no holes other than designed holes.
Cleanout Gate	Damaged or Missing	Cleanout gate is not watertight or is missing.	Gate is watertight and works as designed.
		Gate cannot be moved up and down by one maintenance person.	Gate moves up and down easily and is watertight.
		Chain/rod leading to gate is missing or damaged.	Chain is in place and works as designed.
		Gate is rusted over 50% of its surface area.	Gate is repaired or replaced to meet design standards.
Orifice Plate	Damaged or Missing	Control device is not working properly due to missing, out of place, or bent orifice plate.	Plate is in place and works as designed.
	Obstructions	Any trash, debris, sediment, or vegetation blocking the plate.	Plate is free of all obstructions and works as designed.
Overflow Pipe	Obstructions	Any trash or debris blocking (or having the potential of blocking) the overflow pipe.	Pipe is free of all obstructions and works as designed.
Manhole	See "Closed Detention Systems" (No. 3).	See "Closed Detention Systems" (No. 3).	See "Closed Detention Systems" (No. 3).
Catch Basin	See "Catch Basins" (No. 5).	See "Catch Basins" (No. 5).	See "Catch Basins" (No. 5).

No. 5 – Catch Basins

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is performed
General	Trash & Debris	Trash or debris which is located immediately in front of the catch basin opening or is blocking inletting capacity of the basin by more than 10%.	No Trash or debris located immediately in front of catch basin or on grate opening.
		Trash or debris (in the basin) that exceeds 60 percent of the sump depth as measured from the bottom of basin to invert of the lowest pipe into or out of the basin, but in no case less than a minimum of six inches clearance from the debris surface to the invert of the lowest pipe.	No trash or debris in the catch basin.
		Trash or debris in any inlet or outlet pipe blocking more than 1/3 of its height.	Inlet and outlet pipes free of trash or debris.
		Dead animals or vegetation that could generate odors that could cause complaints or dangerous gases (e.g., methane).	No dead animals or vegetation present within the catch basin.
	Sediment	Sediment (in the basin) that exceeds 60 percent of the sump depth as measured from the bottom of basin to invert of the lowest pipe into or out of the basin, but in no case less than a minimum of 6 inches clearance from the sediment surface to the invert of the lowest pipe.	No sediment in the catch basin
	Structure Damage to Frame and/or Top Slab	Top slab has holes larger than 2 square inches or cracks wider than 1/4 inch (Intent is to make sure no material is running into basin).	Top slab is free of holes and cracks.
		Frame not sitting flush on top slab, i.e., separation of more than 3/4 inch of the frame from the top slab. Frame not securely attached	Frame is sitting flush on the riser rings or top slab and firmly attached.
	Fractures or Cracks in Basin Walls/ Bottom	Maintenance person judges that structure is unsound.	Basin replaced or repaired to design standards.
		Grout fillet has separated or cracked wider than 1/2 inch and longer than 1 foot at the joint of any inlet/outlet pipe or any evidence of soil particles entering catch basin through cracks.	Pipe is regouted and secure at basin wall.
	Settlement/ Misalignment	If failure of basin has created a safety, function, or design problem.	Basin replaced or repaired to design standards.
	Vegetation	Vegetation growing across and blocking more than 10% of the basin opening.	No vegetation blocking opening to basin.
		Vegetation growing in inlet/outlet pipe joints that is more than six inches tall and less than six inches apart.	No vegetation or root growth present.
	Contamination and Pollution	See "Detention Ponds" (No. 1).	No pollution present.

No. 5 – Catch Basins

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is performed
Catch Basin Cover	Cover Not in Place	Cover is missing or only partially in place. Any open catch basin requires maintenance.	Catch basin cover is closed
	Locking Mechanism Not Working	Mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread.	Mechanism opens with proper tools.
	Cover Difficult to Remove	One maintenance person cannot remove lid after applying normal lifting pressure. (Intent is keep cover from sealing off access to maintenance.)	Cover can be removed by one maintenance person.
Ladder	Ladder Rungs Unsafe	Ladder is unsafe due to missing rungs, not securely attached to basin wall, misalignment, rust, cracks, or sharp edges.	Ladder meets design standards and allows maintenance person safe access.
Metal Grates (If Applicable)	Grate opening Unsafe	Grate with opening wider than 7/8 inch.	Grate opening meets design standards.
	Trash and Debris	Trash and debris that is blocking more than 20% of grate surface inletting capacity.	Grate free of trash and debris.
	Damaged or Missing.	Grate missing or broken member(s) of the grate.	Grate is in place and meets design standards.

No. 6 – Debris Barriers (e.g., Trash Racks)

Maintenance Components	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
General	Trash and Debris	Trash or debris that is plugging more than 20% of the openings in the barrier.	Barrier cleared to design flow capacity.
Metal	Damaged/ Missing Bars.	Bars are bent out of shape more than 3 inches.	Bars in place with no bends more than 3/4 inch.
		Bars are missing or entire barrier missing.	Bars in place according to design.
		Bars are loose and rust is causing 50% deterioration to any part of barrier.	Barrier replaced or repaired to design standards.
	Inlet/Outlet Pipe	Debris barrier missing or not attached to pipe	Barrier firmly attached to pipe

Appendix E

Covenants, Dedications, Easements

WHEN RECORDED MAIL TO:

CITY OF SHORELINE – PUBLIC WORKS

Attn: Development Review

17500 Midvale Avenue N

Shoreline, WA 98133-4905

DECLARATION OF COVENANT**For Maintenance and Inspection of Stormwater Facilities and/or BMPs****Grantor(s): Pulte Homes of Washington, Inc.****Grantee: City of Shoreline****Tax Parcel ID No.: 7771300060, -055, -065, -070, -110, -115, -125, -135, -140, -145, -150****Property Address: 2105, 2117, 2123 & 2150 N 148th ST., 14704, 14710, 14718 Meridian Ave N, 2116, 2122, 2132 & 2142 N 147th ST., Shoreline, WA 98133****Legal Description: See Attached Legal Description**

IN CONSIDERATION of the surface water improvements constructed under City of Shoreline Permit No. TBD relating to the real property legally described above ("Property"), the Grantor, the owner in fee of the Property, hereby covenants with the Grantee, City of Shoreline, a political subdivision of the state of Washington ("City of Shoreline" or "City"), the he/she/they will observe, consent to, and abide by the conditions and obligations set forth herein with regard to the Property and hereby grants right of entry over the portions of the Property to the City of Shoreline for the purposes described herein.

THEREFORE, the Grantor hereby grants, covenant, and agree as follows:

A) COVENANTS

1. The Grantor or his/her/their successor in interest and assigns shall, at their sole cost and expense, operate, maintain, and keep in good repair the Property's stormwater facilities and/or best management practices ("BMPs") shown on the approved "DRAINAGE PLAN" for the property attached hereto as Exhibit A with "DETAILS" sheets attached hereto as Exhibit B. The Property's stormwater facilities and/or BMPs shall be maintained in compliance with the "Operation and Maintenance Requirements" attached hereto as Exhibit C.
2. If the City of Shoreline determines that maintenance or repair work is required to be done to any of the Property's stormwater facilities or BMPs, the Public Works Director for the City of Shoreline shall give written notice of the specific maintenance and/or repair work required. In this written notice, the City shall set a reasonable time in which such work is to be completed by the Grantor(s). If the required work is not completed within the time set by the City, the City may perform the required work. Written notice will be sent to the Grantor stating the City's intention to perform the required work. Such notice shall state that the City will not commence any work until at least seven (7) working days after mailing of the notice. If, within the sole discretion of the Public Works Director for the City of Shoreline, there exists an imminent or present danger to

the public health, safety or welfare, or the environment, the Grantor hereby waives the seven (7) working day notice period and the required work may begin immediately.

3. The Grantor shall assume all responsibility for any and all costs and expenses of any maintenance or repair work completed by the City. Such responsibility shall include reimbursement to the City within thirty (30) calendar days of the receipt of the invoice for any such work performed. Overdue payments will require payment of interest at the prime rate at the time of the work plus two (2) percent as liquidated damages. In the event that City of Shoreline does not receive reimbursement within the required time frame, it may elect to place a lien on the Property and act upon the lien in accordance with the terms and procedures specified in the City of Shoreline Code Title 20, as amended from time to time, or as otherwise provided by law.
4. The Grantor is hereby required to obtain written approval from the Public Works Director of the City of Shoreline prior to performing any alterations or modifications to the Property's stormwater facilities and/or BMPs, except for performance of routine landscape maintenance.

B) RIGHT OF ENTRY

1. The City shall have a perpetual right of entry from the public right-of-way over and across those portions of the Property for the purpose of performing inspection and/or monitoring of the stormwater facilities and/or BMPs. Prior to performing such activity, the City shall provide written notice at least seven (7) working days prior to entering the Property. All inspection and monitoring activity shall be at the sole cost and expense of the City.
2. The City shall also have a perpetual right of entry from the public right-of-way over and across those portions of the Property for the purpose of performing any maintenance or repair activity as provided in Section A(2) of this Declaration of Covenant.
3. In carrying out any inspection or monitoring work, the City shall restore the surface of the ground to the same condition in which it was before the inspection or monitoring occurred, or as near as such restoration can be made.

C) GENERAL PROVISIONS

1. This Declaration of Covenant is intended to promote the efficient and effective management of surface water drainage on the Property, and it shall inure to the benefit of all the citizens of the City of Shoreline, its successors and assigns.
2. This Declaration of Covenant, and all of the terms, conditions, rights, and obligations herein contained, shall run with the land and be binding upon Grantor, and Grantor's successors in interest, lessees, and assigns.
3. Any notice or consent required to be given or otherwise provided for by the provisions of this Declaration of Covenant for the Grantor shall be sent to the current property owner of record

pursuant to County Tax Assessor records. Any Notice of consent for the City shall be sent to the Director of Public Works, Shoreline City Hall, 17500 Midvale Avenue N, Shoreline, WA 98133-4905 or the most current address for the City's Public Works Department.

4. Any notice or consent required shall be sent via personal delivery, U.S. Postal Service Certified mail, return receipt requested, or nationally recognized courier service, proof of delivery required. Any notice or consent shall be effective upon personal delivery, date of proof of delivery, or three (3) calendar days after mailing by Certified mail, return receipt requested, whichever occurs sooner.
5. If legal action is taken to enforce the provisions of this Declaration of Covenant, such action shall be taken in the King County Superior Court. If the City should prevail in any such legal action to enforce this Declaration of Covenant, the person against whom the City prevailed shall pay all of the City's costs and expenses, including reasonable attorneys' fees, incurred in connection with the City's efforts to enforce this Covenant.
6. This Declaration of Covenant is the entire agreement of the parties hereto. This Declaration of Covenant may be terminated or amended by execution of a written agreement by Grantor and the City of Shoreline expressing their mutual agreement to terminate or amend this Declaration of Covenant.
7. This Declaration of Covenant, and any amendment, shall be filed and recorded with the King County Recorder by the Grantor, at the sole expense of the Grantor, so as to become part of the property records for the Property.
8. If, for any reason, any provision of this Declaration of Covenant is held invalid or its application to any person or situation be declared invalid, such decision shall not affect the validity of the remaining portions of this Declaration of Covenant or its application to any person or situation.

IN WITNESS WHEREOF, this Declaration of Covenant and Grant of Easement is executed
this ____ day of _____, 20__.

GRANTOR:

By _____ By _____

Its _____ Its _____

STATE OF WASHINGTON)
) ss.
 COUNTY OF KING)

I certify that I know or have satisfactory evidence that _____ is the person(s) who appeared before me, and acknowledged that he/she/they signed and delivered this instrument as his/her/their free and voluntary act for the uses and purposes set forth.

Dated this _____ day of _____, 20____ .

 Notary Public in and for the State of Washington,
 Residing at _____
 My commission expires _____

Legal Description

TPN 777130-0055:

LOT 1 IN BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0060:

LOT 2 IN BLOCK 2 OF SHORELINE HEIGHTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0065:

LOT 3 IN BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY AUDITOR, WASHINGTON.

TPN 777130-0070:

LOT 4, BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, IN KING COUNTY, WASHINGTON.

TPN 777130-0135:

LOT 17, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NUMBER 20190620000657, IN KING COUNTY, WASHINGTON.

TPN 777130-0140:

LOT 18, BLOCK 2, SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, AND AMENDED BY DOCUMENT RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0145:

LOT 19, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0150:

LOT 20, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.

TPN 777130-0125:

LOTS 15 AND 16, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON;

EXCEPT THE EAST 17.00 FEET OF SAID LOT 15 THEREOF;

(ALSO KNOWN AS LOT A OF CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT NO. SHLA 2010-02 RECORDED ON JUNE 23, 2010 AS RECORDING NO. 20100623900002, IN THE OFFICIAL RECORDS OF KING COUNTY, WASHINGTON.)

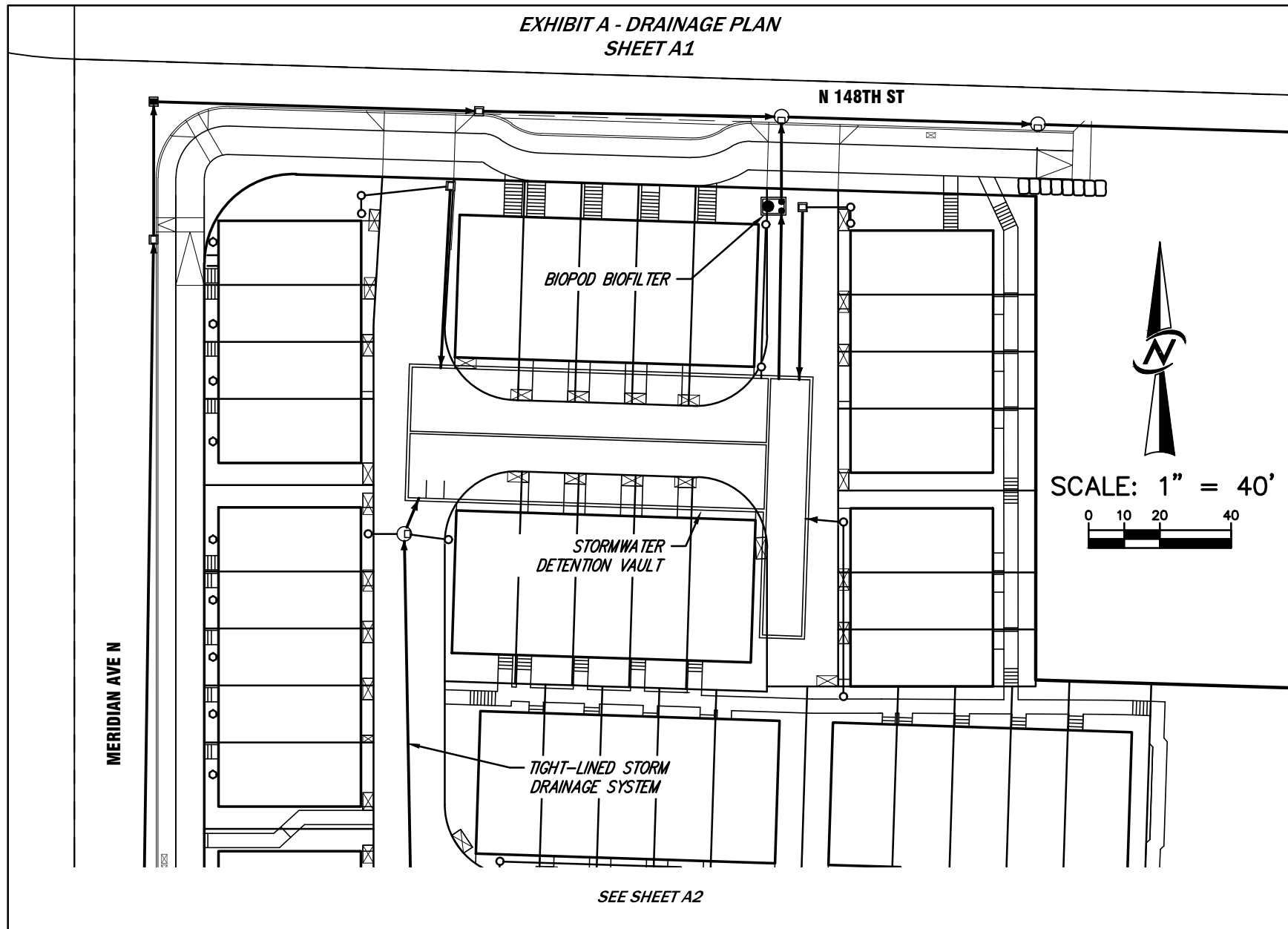
TPN 777130-0115:

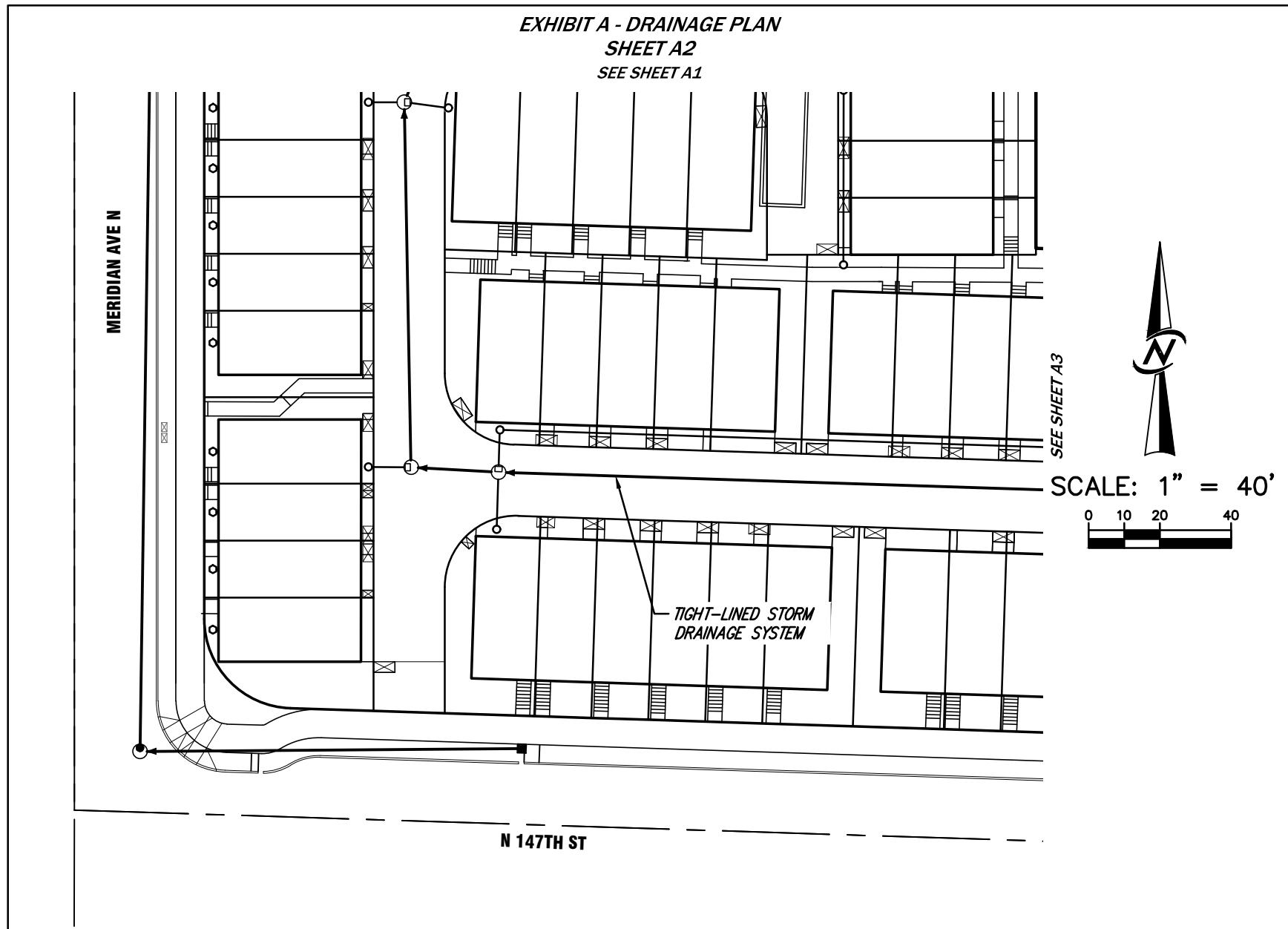
LOT B, CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT NO. SHLA 2010-02 RECORDED JUNE 23, 2010 UNDER RECORDING NO. 20100623900002, IN KING COUNTY, WASHINGTON.

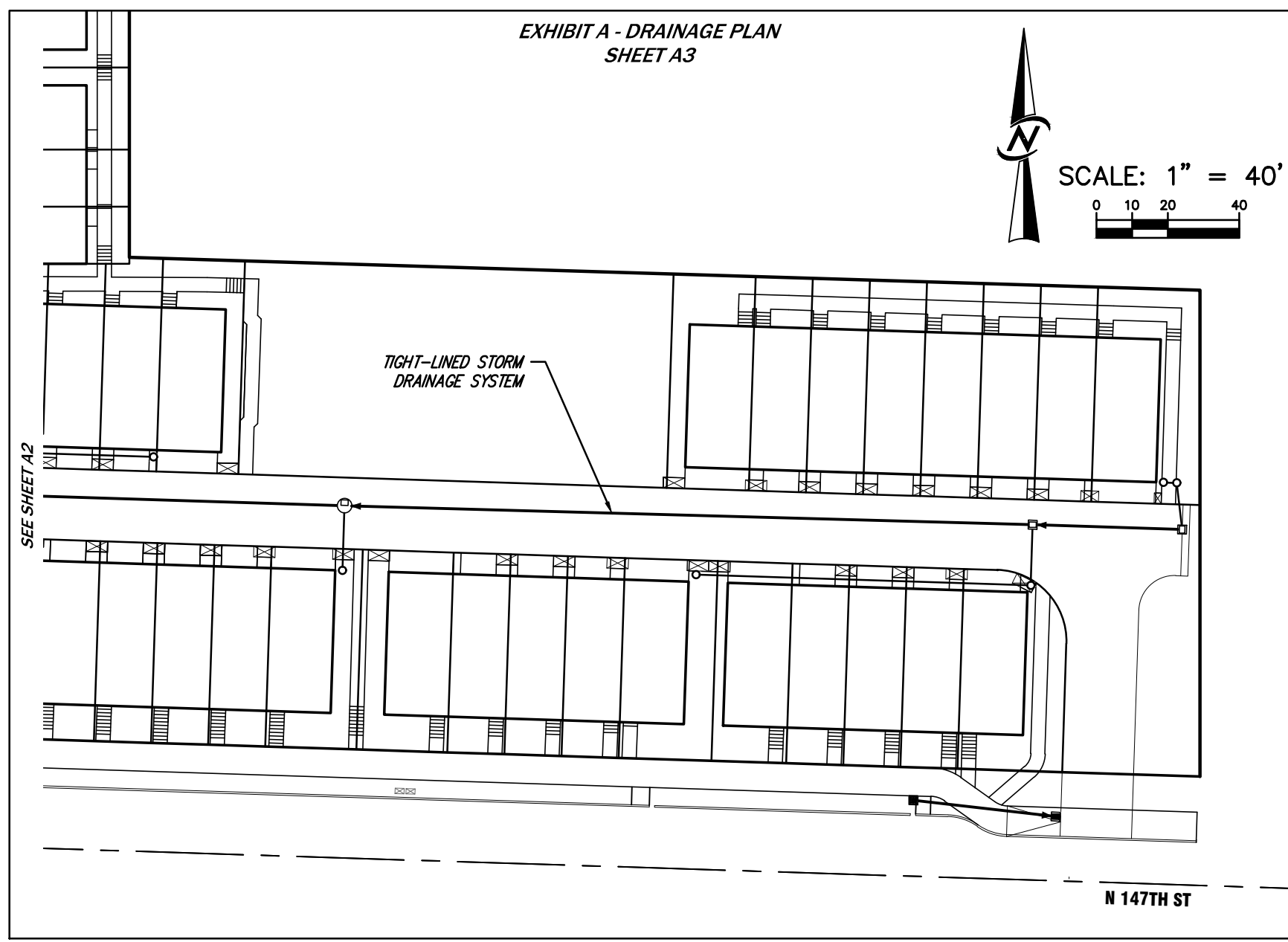
TPN 777130-0110:

LOT 12 AND THE EAST HALF OF LOT 13 IN BLOCK 2, SHORELINE HEIGHTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, AND PER ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.

EXHIBIT A – Drainage Plan**EXHIBIT B – Details Sheets****EXHIBIT C – Operation and Maintenance Requirements**







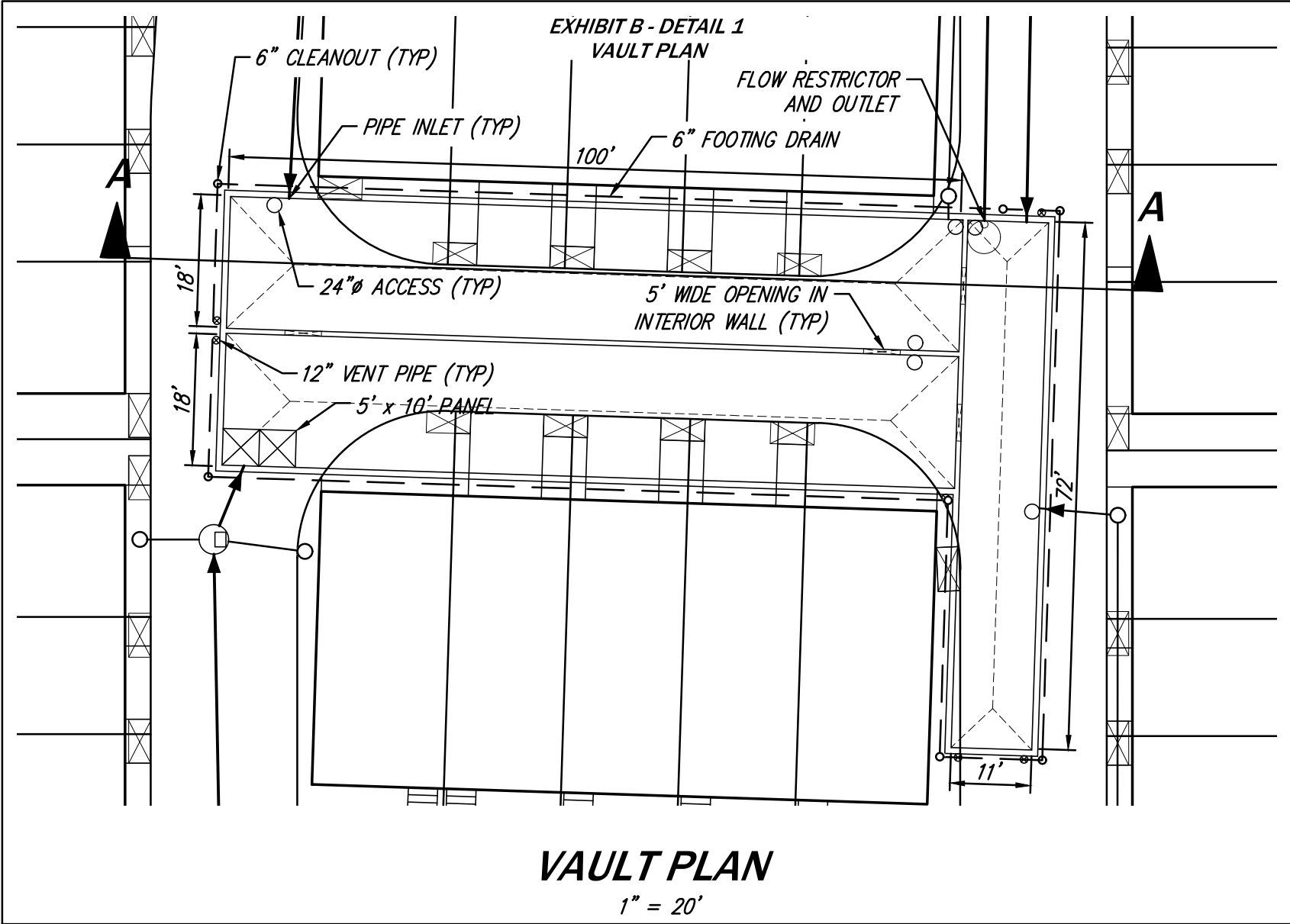
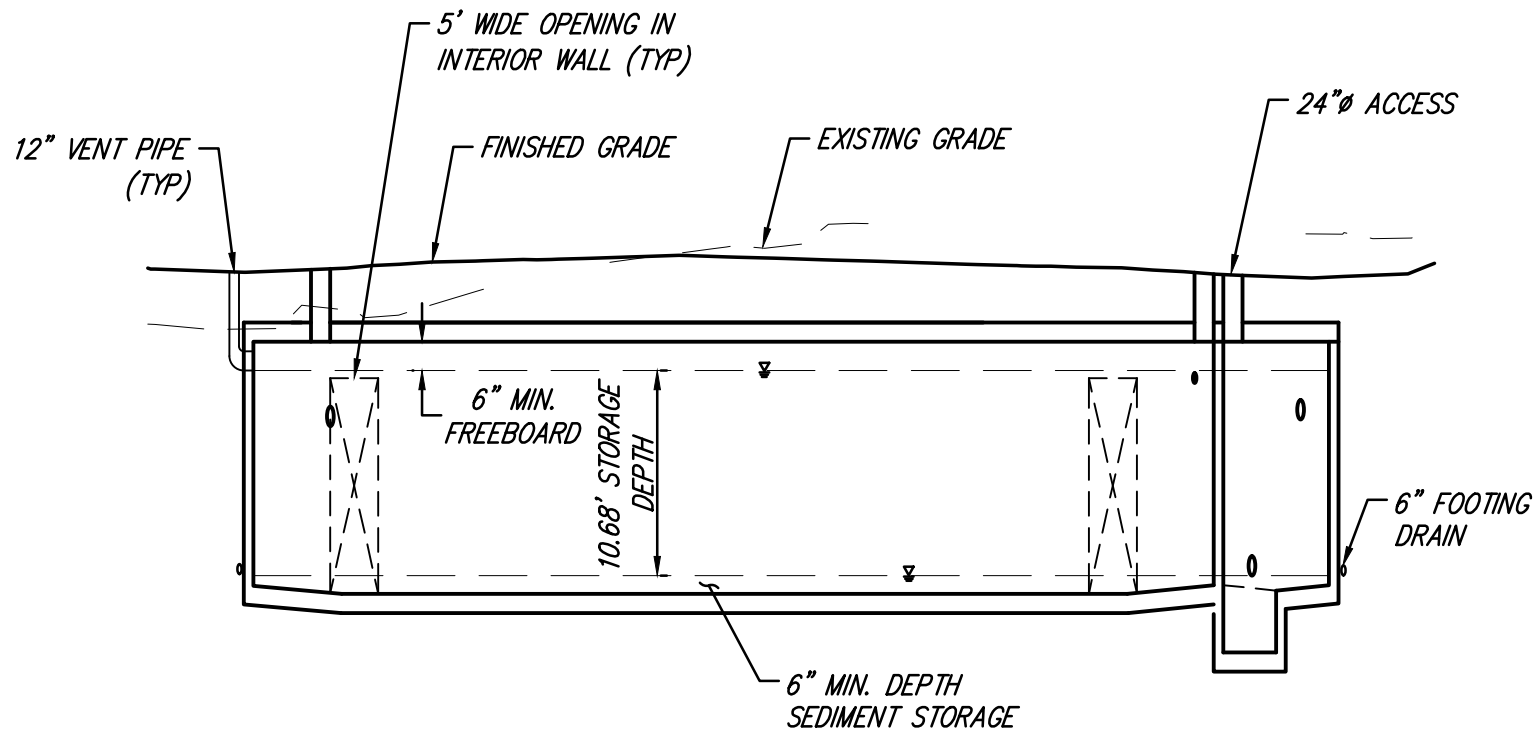


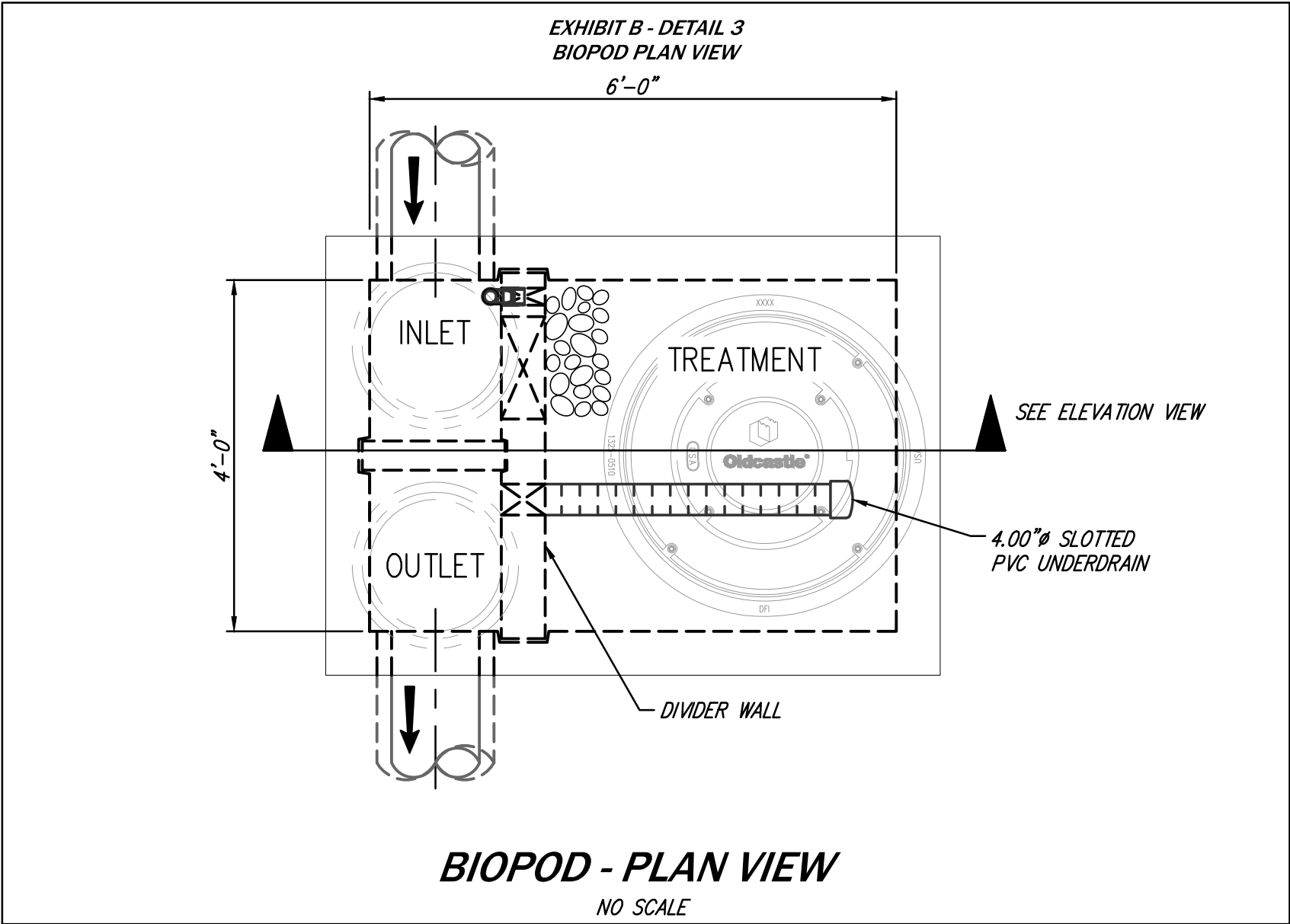
EXHIBIT B - DETAIL 2
VAULT SECTION A-A



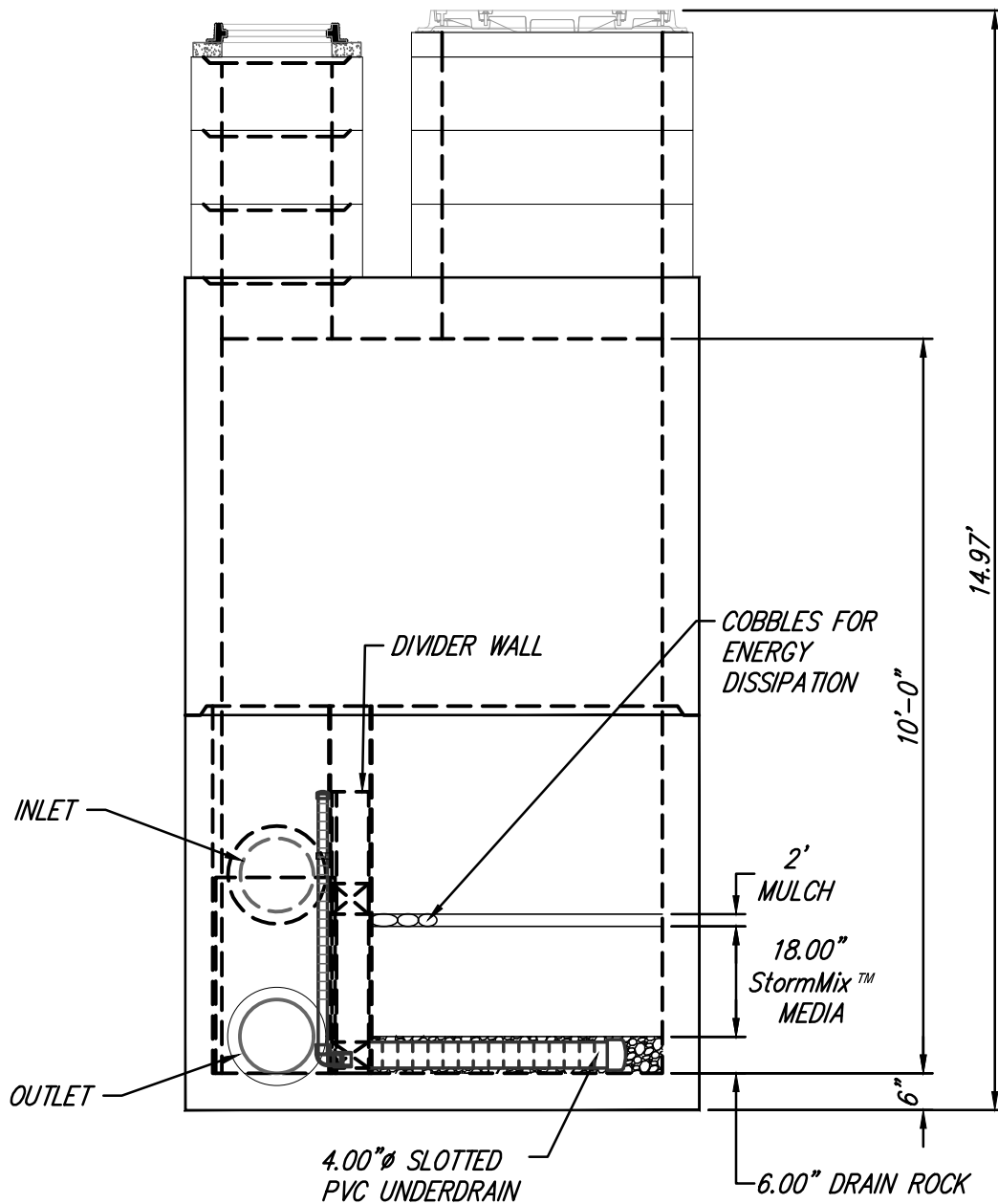
VAULT SECTION A-A

HORIZ. SCALE: 1" = 20'

VERT. SCALE: 1" = 10'



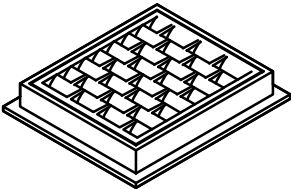
**EXHIBIT B - DETAIL 4
BIOPOD ELEVATION VIEW**



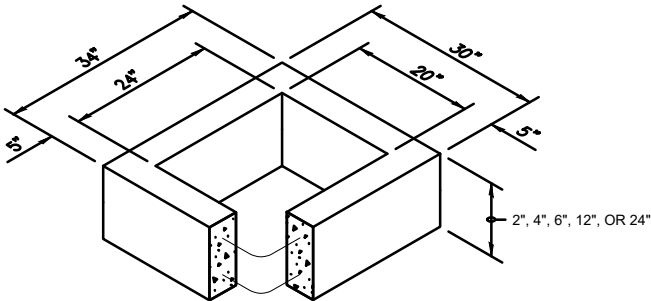
BIOPOD - ELEVATION VIEW

NO SCALE

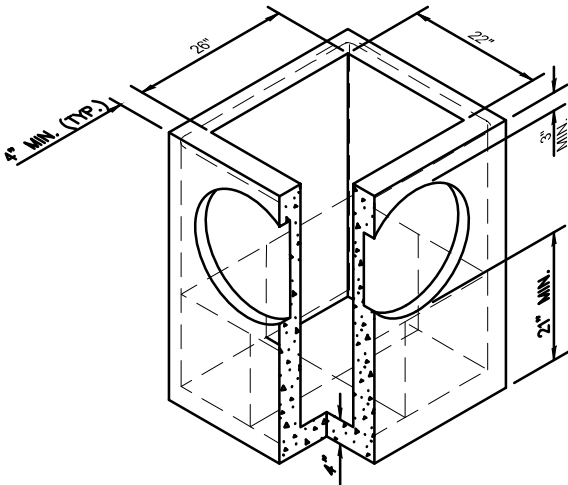
EXHIBIT B - DETAIL 5
TYPE 1 CB



FRAME AND VANED GRATE



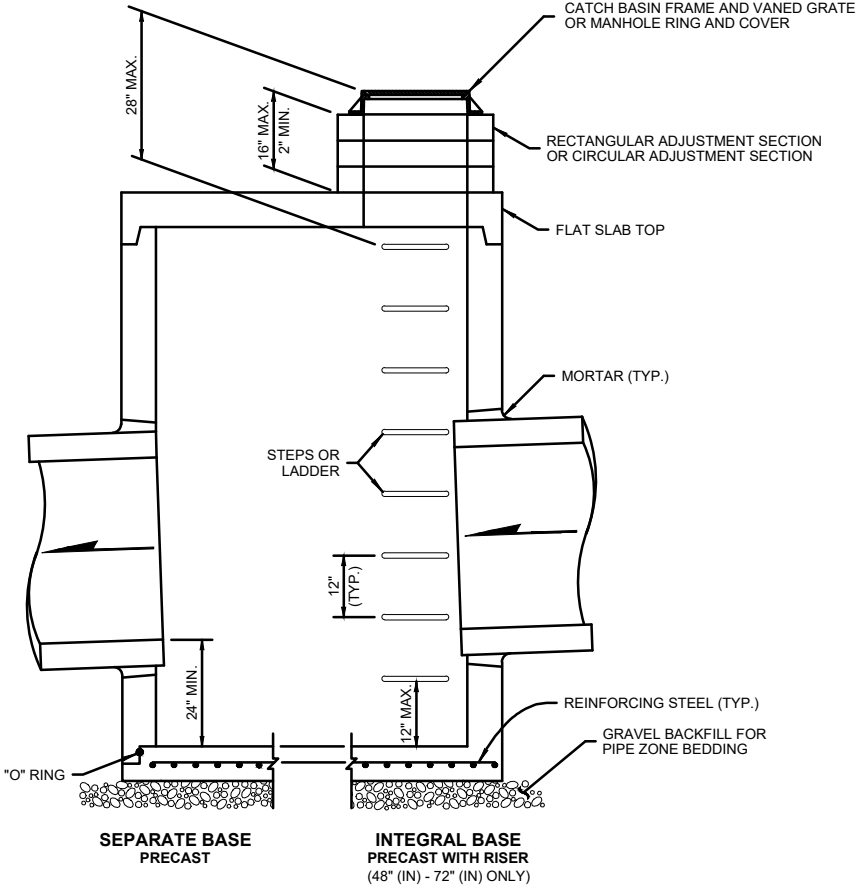
RECTANGULAR ADJUSTMENT SECTION



PRECAST BASE SECTION

TYPE 1 CB
NO SCALE

EXHIBIT B - DETAIL 6
TYPE 2 CB



TYPE 2 CB
NO SCALE

EXHIBIT C - OPERATION & MAINTENANCE REQUIREMENTS**No. 3 – Closed Detention Systems (Tanks/Vaults)**

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is Performed
Storage Area	Plugged Air Vents	One-half of the cross section of a vent is blocked at any point or the vent is damaged.	Vents open and functioning.
	Debris and Sediment	Accumulated sediment depth exceeds 10% of the diameter of the storage area for 1/2 length of storage vault or any point depth exceeds 15% of diameter. (Example: 72-inch storage tank would require cleaning when sediment reaches depth of 7 inches for more than 1/2 length of tank.)	All sediment and debris removed from storage area.
	Joints Between Tank/Pipe Section	Any openings or voids allowing material to be transported into facility. (Will require engineering analysis to determine structural stability).	All joint between tank/pipe sections are sealed.
	Tank Pipe Bent Out of Shape	Any part of tank/pipe is bent out of shape more than 10% of its design shape. (Review required by engineer to determine structural stability).	Tank/pipe repaired or replaced to design.
	Vault Structure Includes Cracks in Wall, Bottom, Damage to Frame and/or Top Slab	Cracks wider than 1/2-inch and any evidence of soil particles entering the structure through the cracks, or maintenance/inspection personnel determines that the vault is not structurally sound. Cracks wider than 1/2-inch at the joint of any inlet/outlet pipe or any evidence of soil particles entering the vault through the walls.	Vault replaced or repaired to design specifications and is structurally sound. No cracks more than 1/4-inch wide at the joint of the inlet/outlet pipe.
Manhole	Cover Not in Place	Cover is missing or only partially in place. Any open manhole requires maintenance.	Manhole is closed.
	Locking Mechanism Not Working	Mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread (may not apply to self-locking lids).	Mechanism opens with proper tools.
	Cover Difficult to Remove	One maintenance person cannot remove lid after applying normal lifting pressure. Intent is to keep cover from sealing off access to maintenance.	Cover can be removed and reinstalled by one maintenance person.
	Ladder Rungs Unsafe	Ladder is unsafe due to missing rungs, misalignment, not securely attached to structure wall, rust, or cracks.	Ladder meets design standards. Allows maintenance person safe access.
Catch Basins	See "Catch Basins" (No. 5)	See "Catch Basins" (No. 5).	See "Catch Basins" (No. 5).

EXHIBIT C - OPERATION & MAINTENANCE REQUIREMENTS**No. 4 – Control Structure/Flow Restrictor**

Maintenance Component	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
General	Trash and Debris (Includes Sediment)	Material exceeds 25% of sump depth or 1 foot below orifice plate.	Control structure orifice is not blocked. All trash and debris removed.
	Structural Damage	Structure is not securely attached to manhole wall.	Structure securely attached to wall and outlet pipe.
		Structure is not in upright position (allow up to 10% from plumb).	Structure in correct position.
		Connections to outlet pipe are not watertight and show signs of rust.	Connections to outlet pipe are water tight; structure repaired or replaced and works as designed.
		Any holes--other than designed holes--in the structure.	Structure has no holes other than designed holes.
Cleanout Gate	Damaged or Missing	Cleanout gate is not watertight or is missing.	Gate is watertight and works as designed.
		Gate cannot be moved up and down by one maintenance person.	Gate moves up and down easily and is watertight.
		Chain/rod leading to gate is missing or damaged.	Chain is in place and works as designed.
		Gate is rusted over 50% of its surface area.	Gate is repaired or replaced to meet design standards.
Orifice Plate	Damaged or Missing	Control device is not working properly due to missing, out of place, or bent orifice plate.	Plate is in place and works as designed.
	Obstructions	Any trash, debris, sediment, or vegetation blocking the plate.	Plate is free of all obstructions and works as designed.
Overflow Pipe	Obstructions	Any trash or debris blocking (or having the potential of blocking) the overflow pipe.	Pipe is free of all obstructions and works as designed.
Manhole	See "Closed Detention Systems" (No. 3).	See "Closed Detention Systems" (No. 3).	See "Closed Detention Systems" (No. 3).
Catch Basin	See "Catch Basins" (No. 5).	See "Catch Basins" (No. 5).	See "Catch Basins" (No. 5).

EXHIBIT C - OPERATION & MAINTENANCE REQUIREMENTS



BIOPOD™ SYSTEM

WITH STORMMIX™ MEDIA

Inspection and Maintenance Guide





INSPECTION AND MAINTENANCE GUIDE

BioPod™ Biofilter with StormMix™ Biofiltration Media

Description

The BioPod™ Biofilter System (BioPod) is a stormwater biofiltration treatment system used to remove pollutants from stormwater runoff. Impervious surfaces and other urban and suburban landscapes generate a variety of contaminants that can enter stormwater and pollute downstream receiving waters unless treatment is provided. The BioPod system uses proprietary StormMix™ biofiltration media to capture and retain pollutants including total suspended solids (TSS), metals, nutrients, gross solids, trash and debris as well as petroleum hydrocarbons.

Function

The BioPod system uses engineered, high-flow rate filter media to remove stormwater pollutants, allowing for a smaller footprint than conventional bioretention systems. Contained within a compact precast concrete vault, the BioPod system consists of a biofiltration chamber and an optional integrated high-flow bypass with a contoured inlet rack to minimize scour. The biofiltration chamber is filled with horizontal layers of aggregate (which may or may not include an underdrain), biofiltration media and mulch. Stormwater passes vertically down through the mulch and biofiltration media for treatment. The mulch provides pretreatment by retaining most of the solids or sediment. The biofiltration media provides further treatment by retaining finer sediment and dissolved pollutants. The aggregate allows the media bed to drain evenly for discharge through an underdrain pipe or by infiltration.

Configuration

The BioPod system can be configured with either an internal or external bypass. The internal bypass allows both water quality and bypass flows to enter the treatment vault. The water quality flows are directed to the biofiltration chamber while the excess flows are diverted over the bypass weir without entering the biofiltration chamber. Both the treatment and bypass flows are combined in the outlet area prior to discharge from the structure. BioPod units without an internal bypass are designed such that only treatment flows enter the treatment structure. When the system has exceeded its treatment capacity, ponding will force bypass flows to continue down the gutter to the nearest standard catch basin or other external bypass structure.

The BioPod system can be configured as a tree box filter with tree and grated inlet, as a planter box filter with shrubs, grasses and an open top, or as an underground filter with access risers, doors and a subsurface inlet pipe. The optional internal bypass may be incorporated with any of these configurations. In addition, an open bottom configuration may be used to promote infiltration and groundwater recharge. The configuration and size of the BioPod system is designed to meet the requirements of a specific project.

Inspection & Maintenance Overview

State and local regulations require all stormwater management systems to be inspected on a regular basis and maintained as necessary to ensure performance and protect downstream receiving waters. Without maintenance, excessive pollutant buildup can limit system performance by reducing the operating capacity of the system and increasing the potential for scouring of pollutants during periods of high flow.

Some configurations of the BioPod may require periodic irrigation to establish and maintain vegetation. Vegetation will typically become established about two years after planting. Irrigation requirements are ultimately dependent on climate, rainfall and the type of vegetation selected.

Maintenance Frequency

Periodic inspection is essential for consistent system performance and is easily completed. Inspection is typically conducted a minimum of twice per year, but since pollutant transport and deposition varies from site to site, a site-specific maintenance frequency should be established during the first two or three years of operation.

Inspection Equipment

The following equipment is helpful when conducting BioPod inspections:

- Recording device (pen and paper form, voice recorder, iPad, etc.)
- Suitable clothing (appropriate footwear, gloves, hardhat, safety glasses, etc.)
- Traffic control equipment (cones, barricades, signage, flagging, etc.)
- Manhole hook or pry bar
- Flashlight
- Tape measure

Inspection Procedures

BioPod inspections are visual and are conducted without entering the unit. To complete an inspection, safety measures including traffic control should be deployed before the access covers or tree grates are removed. Once the covers have been removed, the following items should be checked and recorded (see form provided on page 6) to determine whether maintenance is required:

- If the BioPod unit is equipped with an internal bypass, inspect the contoured inlet rack and outlet chamber and note whether there are any broken or missing parts. In the unlikely event that internal parts are broken or missing, contact Oldcastle Stormwater at (800) 579-8819 to determine appropriate corrective action.
- Note whether the curb inlet, inlet pipe, or – if the unit is equipped with an internal bypass – the inlet rack is blocked or obstructed.
- If the unit is equipped with an internal bypass, observe, quantify and record the accumulation of trash and debris in the inlet rack. The significance of accumulated trash and debris is a matter of judgment. Often, much of the trash and debris may be removed manually at the time of inspection if a separate maintenance visit is not yet warranted.
- If it has not rained within the past 24 hours, note whether standing water is observed in the biofiltration chamber.
- Finally, observe, quantify and record presence of invasive vegetation and the amount of trash and debris and sediment load in the biofiltration chamber. Erosion of the mulch and biofiltration media bed should also be recorded. Sediment load may be rated light, medium or heavy depending on the conditions. Loading characteristics may be determined as follows:
 - o Light sediment load – sediment is difficult to distinguish among the mulch fibers at the top of the mulch layer; the mulch appears almost new.
 - o Medium sediment load – sediment accumulation is apparent and may be concentrated in some areas; probing the mulch layer reveals lighter sediment loads under the top 1" of mulch.
 - o Heavy sediment load – sediment is readily apparent across the entire top of the mulch layer; individual mulch fibers are difficult to distinguish; probing the mulch layer reveals heavy sediment load under the top 1" of mulch.

Often, much of the invasive vegetation and trash and debris may be removed manually at the time of inspection if a separate maintenance visit is not yet warranted.

Maintenance Indicators

Maintenance should be scheduled if any of the following conditions are identified during inspection:

- The concrete structure is damaged or the tree grate or access cover is damaged or missing.
- The curb inlet or inlet rack is obstructed.
- Standing water is observed in the biofiltration chamber more than 24 hours after a rainfall event (use discretion if the BioPod is located downstream of a storage system that attenuates flow).
- Trash and debris in the inlet rack cannot be easily removed at the time of inspection.
- Trash and debris, invasive vegetation or sediment load in the biofiltration chamber is heavy or excessive erosion has occurred.

Maintenance Equipment

The following equipment is helpful when conducting BioPod maintenance:

- Suitable clothing (appropriate footwear, gloves, hardhat, safety glasses, etc.)
- Traffic control equipment (cones, barricades, signage, flagging, etc.)
- Manhole hook or pry bar
- Flashlight
- Tape measure
- Rake, hoe, shovel and broom
- Bucket
- Pruners
- Vacuum truck (optional)

Maintenance Procedures

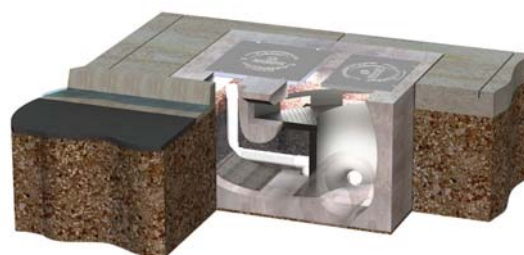
Maintenance should be conducted during dry weather when no flows are entering the system. All maintenance may be conducted without entering the BioPod structure. Once safety measures such as traffic control are deployed, the access covers may be removed and the following activities may be conducted to complete maintenance:

- Remove all trash and debris from the curb inlet and inlet rack manually or by using a vacuum truck as required.
- Remove all trash and debris and invasive vegetation from the biofiltration chamber manually or by using a vacuum truck as required.
- If the sediment load is medium or light but erosion of the biofiltration media bed is evident, redistribute the mulch with a rake or replace missing mulch as appropriate. If erosion persists, rocks may be placed in the eroded area to help dissipate energy and prevent recurring erosion.
- If the sediment load is heavy, remove the mulch layer using a hoe, rake, shovel and bucket, or by using a vacuum truck as required. If the sediment load is particularly heavy, inspect the surface of the biofiltration media once the mulch has been removed. If the media appears clogged with sediment, remove and replace one or two inches of biofiltration media prior to replacing the mulch layer.
- Prune vegetation as appropriate and replace damaged or dead plants as required.
- Replace the tree grate and/or access covers and sweep the area around the BioPod to leave the site clean.
- All material removed from the BioPod during maintenance must be disposed of in accordance with local environmental regulations. In most cases, the material may be handled in the same manner as disposal of material removed from sumped catch basins or manholes.

Natural, shredded hardwood mulch should be used in the BioPod. Timely replacement of the mulch layer according to the maintenance indicators described above should protect the biofiltration media below the mulch layer from clogging due to sediment accumulation. However, whenever the mulch is replaced, the BioPod should be visited 24 hours after the next major storm event to ensure that there is no standing water in the biofiltration chamber. Standing water indicates that the biofiltration media below the mulch layer is clogged and must be replaced. Please contact Oldcastle Infrastructure at (800) 579-8819 to purchase the proprietary StormMix™ biofiltration media.



BioPod Tree Module



BioPod Media Module



BioPod Planter Module



BioPod Media Vault

BioPod Inspection & Maintenance Log	
BioPod Model_____	Inspection Date_____
Location_____	
Condition of Internal Components <input type="checkbox"/> Good <input type="checkbox"/> Damaged <input type="checkbox"/> Missing	Notes:
Curb Inlet or Inlet Rack Blocked <input type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Standing Water in Biofiltration Chamber <input type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Trash and Debris in Inlet Rack <input type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Trash and Debris in Biofiltration Chamber <input type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Invasive Vegetation in Biofiltration Chamber <input type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Sediment in Biofiltration Chamber <input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy	Notes:
Erosion in Biofiltration Chamber <input type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Maintenance Requirements <input type="checkbox"/> Yes - Schedule Maintenance <input type="checkbox"/> No - Schedule Re-Inspection	

BIPOD™ SYSTEM

WITH STORMMIX™ MEDIA

OUR MARKETS



BUILDING
STRUCTURES



COMMUNICATIONS



WATER



ENERGY



TRANSPORTATION

Appendix F

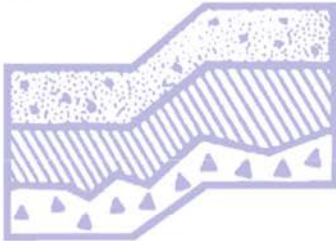
Property Owners Association Articles of Incorporation



PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Shoreline Townhomes
Meridian Avenue N and N 148th Street
Shoreline, Washington**

Project No. T-8268-1

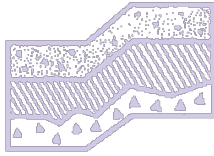


Terra Associates, Inc.

Prepared for:

**Pulte Homes of Washington, Inc.
Bellevue, Washington**

December 23, 2019



TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

December 23, 2019
Project No. T-8268-1

Mr. Jim Sprott
Manager-Land Development
Pulte Homes of Washington, Inc.
3535 Factoria Blvd. SE, Suite 110
Bellevue, Washington 98006

Subject: Phase I Environmental Site Assessment
Shoreline Townhouses
Meridian Avenue N and N 148th Street
Shoreline, Washington

Dear Mr. Sprott:

We have completed a Phase I Environmental Site Assessment (ESA) for the Shoreline Townhomes project located at Meridian Avenue N and N 148th Street in Shoreline, Washington. This report includes information developed for our report, dated December 16, 2019 and our current work. Our study found that each of the parcels that comprise this assemblage had or has residential heating oil USTs. These USTs are recognized environmental conditions (RECs) associated with the site.

The attached report describes our study in detail. We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.



Charles R. Lie, L.E.G., L.H.G.
Project Manager

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**Phase I Environmental Site Assessment
Shoreline Townhomes
Meridian Avenue N and N 148th Street
Shoreline, Washington**

1.0 EXECUTIVE SUMMARY

This report presents the findings of our current Phase I Environmental Site Assessment (ESA) of the Shoreline Townhomes project located at the northeast and southeast quadrants of the intersection of Meridian Avenue N and N 148th Street in Shoreline, Washington. The site location is shown on Figures 1 through 4. This report has been prepared in general accordance with American Society for Testing and Materials (ASTM) E-1527-2013.

The project consists of an assemblage of 11 individual tax parcels: King County Tax Parcel Numbers: 7771300055, 7771300065, 7771300070, 7771300140, 7771300150, 7771300145, 7771300060, 7771300110, 7771300115, 7771300125, and 7771300135. The project involves the demolition of the existing houses and redevelopment of the assemblage with townhouses. The assemblage covers 2.43 acres. Each of the individual parcels is currently developed with single-family residences. The houses were built in the late 1940s and early 1950s. Prior to the residential use of the parcels, the site and site vicinity were rural and agricultural in nature. Each of the houses were originally heated with oil heat. The past and ongoing presence of home heating oil USTs are recognized environmental conditions (RECs) associated with the site. The following sections of this report present the details of our study.

2.0 INTRODUCTION

2.1 Purpose

American Society for Testing and Materials (ASTM) E-1527-13 states: “The purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and petroleum products. As such, this practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability (hereinafter, the “landowner liability protections,” or “LLPs”): that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B). Controlled substances are not included within the scope of this standard. Persons conducting an environmental site assessment as part of an EPA Brownfields Assessment and Characterization Grant awarded under CERCLA 42 U.S.C. §9604(k)(2)(B) must include controlled substances as defined in the Controlled Substances Act (21 U.S.C. §802) within the scope of the assessment investigations to the extent directed in the terms and conditions of the specific grant or cooperative agreement. Additionally, an evaluation of business environmental risk associated with a parcel of commercial real estate may necessitate investigation beyond that identified in this practice.”

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2.2 Scope of Work

Our scope of work for this project included:

- Review of geologic information from public sources.
- Review of information from our geotechnical assessment of the assemblage.
- Review of a current Data Base Report (DBR), prepared by Environmental Risk Information Services (ERIS). The DBR summarizes properties that have interactions with the US Environmental Protection Agency (EPA) as well as the Washington State Department of Ecology (Ecology).
- Review of current on-line databases of environmental information maintained by Ecology.
- Site reconnaissance to observe existing conditions and to review potential risks to the subject site from on- and off-site activities.
- Review of standard historical documents including tax assessor records for the site, fire insurance maps, real estate atlases, and aerial photographs of the area.
- Review of available current tax information for the subject site.
- Review of standard real estate disclosure questionnaires filled out by the prior homeowners.
- Contacts with the local jurisdictions regarding environmental issues on the project.
- Preparation of this report.

We performed the research for this project and report in general accordance with ASTM Test Designation E- 1527-13: *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.

2.3 Significant Assumptions

In the preparation of this report, it has been assumed that this report will be used for due diligence purposes.

2.4 Special Terms and Conditions

Our work did not include non-scope elements such as the following tasks:

- Wildlife assessments.
- Radon, asbestos, or lead paint sampling on the site.
- Wetlands.

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2.5 Limitations

We conducted no testing for this report. The findings, conclusions, and recommendations presented in this report are based on our documented site observations, review of historical and regulatory information, interviews, and review of the referenced historic resources. Other information related to past site uses or current site conditions may exist. Our conclusions in part are based on information provided or prepared by others.

If the existing site uses change, or if further information on the site becomes available, Terra Associates, Inc. should review the information, as it may affect our conclusions.

We prepared our conclusions and recommendations in accordance with generally accepted professional engineering practices. We make no other warranty, either expressed, or implied. This report is the copyrighted property of Terra Associates, Inc. and is intended for specific application to the Shoreline Townhomes project in Shoreline, Washington. This report is for the exclusive use of Pulte Homes of Washington, Inc. and their authorized representatives.

3.0 SITE CONDITIONS**3.1 Site Description**

The project consists of an assemblage of 11 individual tax parcels. The assemblage covers 2.34 acres. Each of the individual parcels is currently developed with single-family residences. The site is in the southwest quarter of the southwest quarter of Section 17, Township 26 North, and Range 4 East of the Willamette Meridian of the Public Land Survey System (PLSS).

The approximate location of the property is shown on Figures 1 and 2. Figure 3 is an oblique aerial photo that shows the site and adjacent parcels. Typical site photos from November 2019 are shown on Figures 4 through 6.

In general, the assemblage slopes down from the southwest to the northeast. Overall relief is about 30 feet. The ground slopes gently down. Locally, there are landscaping and retaining walls that create nearly level terraces on residential lots. Some of the houses have daylight basements that daylight to the north and east. The houses are surrounded by lawns, ornamental shrubbery, and some larger trees around lot perimeters.

We did not observe any evidence of significant auto repairs on any of the parcels. None of the parcels had large garages typically associated with significant auto repairs. We did not observe any visibly or obviously disabled automobiles or trucks on the parcels. We did not observe any significant accumulations of debris or rubbish on any of the parcels. We observed typical homeowner materials in sheds and lean-tos adjacent to the houses. These materials included small gasoline cans and lawnmowers.

We did not observe any unusual stains, odors, or distressed vegetation on the parcels. Our observations for heating oil USTs are summarized in Section 6.2 of this report.

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3.2 Adjacent Land Use

The subject site is in an area that is residential in nature. Figure 3 shows the site and the adjacent parcels. Adjacent property use is summarized below:

North	Single-family residential neighborhoods.
East	Single-family residential neighborhoods.
West	Single-family residential neighborhoods.
South	Single-family residential neighborhoods.

3.3 Soil Conditions

The Geologic Map of Seattle-A Progress Report, King County, Washington, by Kathy Troost et al (2005), shows the site and site vicinity are underlain by Vashon till (Qvt) consisting of a mixture of clay, silt, sand, and gravel.

This is generally consistent with our previous experience in the site vicinity. We have also provided geotechnical assessment services for this project. Our geotechnical assessment show that the site has both weathered and unweathered glacial till soil units. This assessment is detailed in a separate geotechnical report, which was completed concurrently with this environmental assessment, and is attached as Appendix A.

3.4 Hydrogeologic Conditions

For this study, it is reasonable to assume that near-surface groundwater gradients are strongly controlled by the till topography and/or surface features. Based on available topographic information and our field observations, it appears that the direction of on-site shallow groundwater flow beneath the subject site is generally to the northeast, toward Meridian Creek. Local variations in groundwater gradients will occur as a result of man-made features, such as drainage ditches, sewers, and roads. The topography of the area is shown on Figure 2.

4.0 SITE HISTORY RESEARCH**4.1 Aerial Photography Review**

We reviewed historical aerial photographs of the site and vicinity on-line at TerraServer, the USGS, King County IMAP, Historic Photos (NETR website), and Google Earth. For this report, we had an aerial photo report prepared by ERIS. The ERIS aerial photo report is attached in Appendix B. The aerial photos are vertical photos that show the footprints of the buildings and other details visible from that point of view. Dense forest cover can obscure small buildings such as houses and small outbuildings. The actual use of the buildings is usually not ascertainable from the photographs alone. Conclusions of the use of the buildings contained in the following description are based on research from other sources.

- 1936 The parcels are in an area that has been partially cleared, in the southwest portion of the site, but appears to be undeveloped, forested land.
- 1941 The site and vicinity appear as they did in 1936.
- 1943 The site and vicinity appear as they did in 1941.
- 1952 Houses are present throughout the site and on adjacent parcels.
- 1953 The site and vicinity resemble the 1952 conditions.
- 1968 The subject site and vicinity appear similar to existing conditions.

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- 1969 The subject site and vicinity appear similar to existing conditions.
- 1970 The subject site and vicinity appear similar to existing conditions.
- 1977 The subject site and vicinity appear similar to existing conditions.
- 1980 The subject site and vicinity appear similar to existing conditions.
- 1985 The subject site and vicinity appear similar to existing conditions.
- 1990 The subject site and vicinity appear similar to existing conditions.
- 1998 The subject site and vicinity appear similar to existing conditions.
- 2002 The subject site and vicinity appear similar to existing conditions.
- 2005 The subject site and vicinity appear similar to existing conditions.
- 2006 The subject site and vicinity appear similar to existing conditions.
- 2007 The subject site and vicinity appear similar to existing conditions.
- 2009 The subject site and vicinity appear similar to existing conditions.
- 2010 The subject site and vicinity appear similar to existing conditions.
- 2013 The subject site and vicinity appear similar to existing conditions.
- 2015 The subject site and vicinity appear similar to existing conditions.
- 2016 The subject site and vicinity appear similar to existing conditions.
- 2017 The subject site and vicinity appear similar to existing conditions.
- 2018 The subject site and vicinity appear similar to existing conditions.
- 2019 The subject site and vicinity appear similar to existing conditions. This photo is used for Figure 3.

The aerial photographs did not present any information that contradicts other historical information we reviewed.

4.2 Map Review

4.2.1 USGS Maps

We reviewed USGS maps on-line and in our collection.

1894 Seattle Quadrangle

We reviewed the *USGS 15-Minute Seattle Quadrangle*. The site vicinity is shown as undeveloped. No buildings, roads, trails, or railroads are present in the site vicinity.

1895 Snohomish Quadrangle

We reviewed the *United States Geological Survey (USGS) 30-Minute Topographic Map of the Snohomish Quadrangle*. This map shows no development on or adjacent to the subject site.

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1897 *Seattle Special Quadrangle*

We reviewed the *United States Geological Survey (USGS) 30-Minute Topographic Map of the Seattle Quadrangle*. This map shows no development on or adjacent to the subject site.

1900 *Seattle Land Use Map*

This map uses the 1895 map described above as a base map. This map shows the area had been logged and was growing a second forest.

1908 *Seattle Quadrangle*

We reviewed the *USGS 15-Minute Seattle Quadrangle*. This map shows N 145th is present along the south side of the parcels. There are several small buildings along 145th south and east of the parcels that are part of this study.

1909 *Seattle Quadrangle*

We reviewed the *USGS 15-Minute Seattle Quadrangle*. This map shows N 145th is present along the south side of the parcels. There are several small buildings along 145th south and east of the parcels that are part of this study.

1949/1953 *Seattle North Quadrangle*

We reviewed the *United States Geological Survey (USGS) 7.5-Minute Topographic Map of the Seattle North Quadrangle*. Most of the houses on the subject parcels are present. Corliss Avenue N is not shown as being present. Lakeside School is present southeast of the site.

1968 *Seattle North Quadrangle*

We reviewed the *USGS 7.5-Minute Topographic Map of the Seattle North Quadrangle*, dated 1968. The base map is the 1949 map. Photo revisions from 1973 are shown in purple. The site and vicinity have a salmon-colored overlay that signifies urban development.

1993 *Seattle North Quadrangle*

We reviewed the *USGS 7.5-Minute Topographic Map of Seattle North Quadrangle*, dated 1993. The map shows the basic road grid. No buildings or land use are shown on the subject site.

2014 *USGS Map*

We reviewed the *USGS 7.5-Minute Topographic Map of Seattle North Quadrangle*, dated 2014. The map shows the basic road grid. No buildings or land use are shown on the subject site.

2017 *USGS Map*

We reviewed the *USGS 7.5-Minute Topographic Map of the Seattle North Quadrangle*, dated 2017. This map has an orthophoto overlay that shows the site and vicinity as they currently exist. This map with the orthophoto overlay turned off is the base map for Figure 2.

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4.2.2 Sanborn Maps

Sanborn Maps were created to aid in underwriting fire insurance policies in urbanized areas. The maps were generally updated until the 1960s. They typically show the types of buildings and their use for the areas of coverage.

We reviewed the Sanborn Maps for the site electronically through the Library of Congress Sanborn Map collection at the Seattle Library System. Our search of the Sanborn Maps found no coverage for the site. This is consistent with the rural history of the site area.

4.2.3 Government Land Office and Bureau of Land Management Records

We reviewed the land records maintained by the Government Land Office. The area surrounding the parcel was originally surveyed by the U.S. Government in 1859. No buildings, trails, roads, or settlements are shown in the vicinity of the site.

The BLM land grant records show that the site is within a larger parcel that was granted to Marshall Blinn on May 1, 1871.

4.2.4 Commercial Real Estate Maps

Real estate maps have been published for the greater Seattle Area for more than 100 years. They record subdivisions of land and were updated on a regular basis. Due to copyright protections, copies of the maps are not included in this report. We reviewed the following historic real estate atlases:

1907 Anderson Map Company

This map shows the subject site as being within the North Side Garden Tracts. No roads are shown. A railroad, designated as Seattle Everett, runs roughly south to north near the east end of the site.

1912 Kroll Map Company

This map is the same as the 1907 map.

1926 Kroll Map Company

This map is similar as the 1912 map, with the North Side Garden Tracts subdivided into smaller parcels. The subject site is shown as two parcels, whereas it was previously shown as one large tract property.

1936 Metsker Map Company

This map shows the same conditions as the 1926 Kroll Map, with additional road details to the west and east of the site, where, respectively, Dayton Avenue E and Fremont Avenue are shown.

4.3 City Directory Review

City Directories have listings by address of the persons or businesses that owned or leased properties within cities and towns. ERIS performed a city directory review for us. The city directory review is attached in Appendix C. The city directory listings go back to 1934. The first listing for the subject site in the city directory was in 1950.

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The subject site addresses and adjacent addresses are residential in nature in all of the listings.

4.4 Tax Records

4.4.1 Archived Tax Records

We visited the Washington State Archives to obtain the archived tax records. This record system was started in the 1930s as a WPA project. The records are incomplete. The records show that each house was heated with oil. The available records are attached in Appendix D, and summarized in the table below:

Tax Parcel #	Address	Notes
777130-0055	2105 N 148th Street Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1948. Initially occupied in November of 1948, with fee owner given as KC-72 Roll R1-6. Fee owner in 1950 was Lloyd G. Snider. Fee owner in 1952 was Gilbert O. Hinz. No other fee owner is listed after 1952.
777130-0060	14718 Meridian Ave N, Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1949. Initially occupied in June of 1949, with no fee owner given. No fee owner was listed on any of the archived records.
777130-0065	2117 N 148th Street Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1948. Initially occupied in October of 1948, with no fee owner information listed. Fee owner in 1950 was Rodney R. Kilmer. No other fee owner is listed.
777130-0070	2123 N 148th Street Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1950. Initially occupied in October of 1950, with no fee owner information listed. Fee owner in 1957 was Ralph Van Nortwick. Fee owner in 1963 was LeMoyne W. Raney. Fee owner in 1969 was Charles Crowley. Fee owner in 1971 was Larry F. Parker. No fee owner was listed after 1971.
777130-0110	2150 N 147th Street Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1947. Initially occupied in November of 1947, with fee owner given as KC-72 Roll R1-7. Fee owner in was Ed Falbernbery. No other fee owner is listed after 1949.
777130-0115	2142 N 147th Street Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1948. Initially occupied in March of 1948, with no fee owner information listed. No fee owner was listed on any of the archived records.
777130-0125	2132 N 147th Street Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1949. Initially occupied in January of 1949, with fee owner given as H.H. Farrick Jr. Fee owner in 1950 was Bruno P. Suffredini. No other fee owner is listed after 1950.
777130-0135	2122 N 147th Street Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1948. Initially occupied in January of 1949, with fee owner not given. Fee owner in 1957 was Stanley M. Paradie. No other fee owner is listed.
777130-0140	2116 N 147th Street Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1948. Initially occupied in November of 1948, with fee owner not given. Fee owner in 1950 was Emmett H. McDonald. No other fee owner is listed.

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Tax Parcel #	Address	Notes
777130-0145	14710 Meridian Ave N Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1949. Initially occupied in June of 1949, with no fee owner given. Fee owner in 1957 was Royal W. Summers. Fee owner in 1970 was Betty L. McConaughy. No other fee owner is listed after 1970.
777130-0150	14704 Meridian Ave N Shoreline, WA 98133	Construction of single-family residential house both started and completed in 1948. Initially occupied in October of 1948, with no fee owner given. Fee owner in 1950 was Robert L. Jenson. Fee owner in 1960 was Nancy M. Klinkenlern. Fee owner in 1961 was David M. Gordon. A remodel and an addition to the single-family residential house both started and completed in 1968. Remodeled house occupied in 1969, with fee owner given as Edward L. Carter. No other fee owner is listed after 1969.

4.4.2 Current Tax Records

The current on-line tax records list the following ownership and information:

Tax Parcel #	Address	Notes
777130-0055	2105 N 148th Street Shoreline, WA 98133	Owned by John P. Forman and Jennifer M. Forman.
777130-0060	14718 Meridian Ave N Shoreline, WA 98133	Owned by Inland Empire.
777130-0065	2117 N 148th Street Shoreline, WA 98133	Owned by Diversified Strategies Investments.
777130-0070	2123 N 148th Street Shoreline, WA 98133	Owned by Mark L. Delaney.
777130-0110	2150 N 147th Street Shoreline, WA 98133	Owned by Jeb Stewart Thomas and Kari Ren.
777130-0115	2142 N 147th Street Shoreline, WA 98133	Owned by Mark Storey and Kathleen M Blan.
777130-0125	2132 N 147th Street Shoreline, WA 98133	Owned by National Transfer Services.
777130-0135	2122 N 147th Street Shoreline, WA 98133	Owned by Michelle J. Brower and Michael Brower.
777130-0140	2116 N 147th Street Shoreline, WA 98133	Owned by Zaya V Sakya.
777130-0145	14710 Meridian Ave N Shoreline, WA 98133	Owned by Grace Tsui Yun Chow Chu.
777130-0150	14704 Meridian Ave N Shoreline, WA 98133	Owned by Irene Carter.

The current tax record summary is attached in Appendix E. The current heat source for each house are listed in Section 6.2.

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4.5 Title Review

We reviewed title documents provided by Pulte Group. The title documents are attached in Appendix F.

No site use limitations or covenants related to dangerous material releases are present in the documents.

4.6 Activity and Use Limitation

Activity and use limitations (AULs) are commonly placed on sites that have undergone partial cleanups and have residual levels of contamination that remain in place. In the State of Washington, this is normally accomplished through the creation of a covenant that spells out the environmental issues and limitations on site use. To review for the possible presence of AULs, we reviewed the current Environmental Covenant Registry maintained by Ecology. We also reviewed the King County Recorder's website for official recorded documents that would address environmental covenants. No AULs were noted.

Our review of the Ecology and King County records found no environmental covenants for the site.

4.7 Interviews***4.7.1 User Questionnaire***

We received a completed user questionnaire. The questionnaire is attached in Appendix G.

4.7.2 Owner Interview

We reviewed standard real estate disclosure documents for each of the houses. The real estate disclosure documents are in Appendix H. In summary, only one homeowner reported having knowledge of heating oil USTs. We did not obtain real estate disclosure documents for 3 of the 11 parcels within the subject site. This is a data gap, which we discuss in Section 7.4 of this report.

Our research shows that all 11 houses within the subject site were originally heated with oil stored in USTs. This information is detailed in Section 6.2 of this report. The homeowners, Mr. Mark Storey and Ms. Kathleen M. Blan, of Parcel 7771300115, address 2412 N 147th Street, were the only homeowners that indicated their awareness of a heating oil UST on their parcel. Mr. Storey and Ms. Blan continue using the heating oil UST as their primary heat source.

4.7.3 Seattle King County Public Health (SKCPH) Records

At the time of this report, it is currently about eight weeks or more for the health department to fulfill records requests. Due to the limited time frame of this report, no records request was submitted to King County. The health department records are not a readily ascertainable resource. As discussed in Section 6.3, the SKCPH records for clandestine drug labs was reviewed for this report.

4.7.4 City of Shoreline

We requested any documents pertaining to heating oil installations, removals and hazardous or solid waste violations to the City of Shoreline. We received a response from the City. Our correspondences and the records are attached as Appendix I. The city had records for the removal of one UST and of the closure in place of one other UST. No actual site assessments were completed for the USTs that were removed or closed in place.

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4.7.5 Shoreline Fire Department

We requested any documents pertaining to heating oil installations and hazardous waste violations to the City of Shoreline Fire Department. We received a response from the fire department. Our correspondence and the record are attached as Appendix J. No responsive records were present.

4.8 Previous Report by Others

We were provided with no prior environmental reports for the site.

5.0 REGULATORY DOCUMENT REVIEW

We reviewed the ERIS report, dated November 1, 2019. ERIS searches U.S. Environmental Protection Agency and Washington State Department of Ecology (Ecology) databases for sites within a specified radius of a subject property that may pose a risk to that property.

The ERIS report contains reports from numerous databases maintained by Ecology. This includes general stormwater permits for temporary erosion control monitoring on construction projects. The general permits for off-site projects are not issues related to the subject property nor are they a required database from the ASTM guidance. General stormwater permits are not discussed further in this report.

We evaluate relative elevations and locations of listed sites based on our site reconnaissance and review of relevant topographic and geologic maps. The center of the search radius is the approximate boundary of the property. The subject site is not listed in any of the databases.

The ERIS report is attached as Appendix K. The ERIS report is summarized below.

5.1 Federal Records**5.1.1 National Priority List (NPL or Superfund Sites)**

Section 8.2.1 of the ASTM standards requires a review of federal and state lists of hazardous waste sites identified as NPL or Superfund sites within a one-mile radius of the subject property. The ERIS search found no Superfund sites within a one-mile radius of the boundaries of the subject site.

5.1.2 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and CERCLIS – No Further Action Planned (CERCLIS-NFRAP)

Section 8.2.1 of the ASTM standards requires a review of federal and state lists of hazardous waste sites identified as CERCLIS sites within a one-half mile radius of the subject property. The ERIS search found no CERCLIS and no CERCLIS-NFRAP sites within a one-half mile radius of the boundaries of the subject site.

5.1.3 Resource Conservation Recovery Act Information System – Treatment, Storage, and Disposal (RCRA-TSD)

Section 8.2.1 of the ASTM standards requires a review of RCRA Treatment, Storage, or Disposal (TSD) lists to a radius of one-half mile. The ERIS search found no RCRA-TSD site within a one-half mile radius of the boundaries of the subject site.

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Section 8.2.1 of the ASTM standards requires a review of RCRA Treatment, Storage, or Disposal CORRACTS lists to a radius of one-mile. CORRACTS sites are TSD facilities that have had violations in the past. The ERIS search found no CORRACTS sites within a one-mile radius of the boundaries of the subject site.

5.1.4 Resource Conservation Recovery Act (RCRA) – Generators

Section 8.2.1 of the ASTM standards requires a review of federal RCRA generators on the property and adjoining properties. The ERIS search found no RCRA generators on the site. The ERIS search found no RCRA generator sites either adjacent to or within 0.25 miles of the site.

5.1.5 Emergency Response Notification System (ERNS)

Section 8.2.1 of the ASTM standards requires a review of federal ERNS listings on the property. The ERNS database records and stores information on reported releases of oil and hazardous substances. The ERIS search found no ERNS sites on or adjacent to the site.

5.1.6 US Brownfields

The Brownfields database records and stores information on abandoned, idle, or underused commercial or industrial properties with confirmed and/or suspected contamination. The ERIS search found no US Brownfields site within a mile of the boundaries of the subject property.

5.2 State Records

5.2.1 Confirmed or Suspected Contaminated Sites List (CSCSL) and CSCSL No Further Action (NFA)

Section 8.2.1 of the ASTM standards requires a review of state lists of hazardous waste sites identified for investigation or remediation within a one-mile radius of the subject property. ERIS conducted a records search for listed CSCSL sites within a one-mile radius and for CSCSL – NFA sites within one-half mile of the boundaries of the subject property. The ERIS search found 18 CSCSL sites listed within a one-mile radius of the boundaries of the site. The ERIS search found one CSCSL – NFA site listed within a one-half mile radius of the boundaries of the site. The closest sites are:

Site Name/Address	Location	Notes
Kjorsvik Property 14038 Sunnyside Avenue N Seattle, Washington	About 0.31 miles south-southeast and slightly upgradient.	This site has suspected soil contamination with metals and petroleum products.
Crawford Property 2326 N 155th Street Shoreline, Washington	About 0.37 miles north-northeast and downgradient.	This site falls under the MTCA statute, and is awaiting cleanup for unspecified petroleum products, metals, and non-halogenated solvents, all confirmed above cleanup levels.

Based on the statuses, distances from the site, and local hydrogeologic conditions, it is our opinion that these 18 CSCSL sites and the 1 CSCSL-NFA site are not RECs for the subject site.

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5.2.2 Solid Waste Facilities/Landfills (SWF/LF)

Section 8.2.1 of the ASTM standards requires a review of state lists identifying landfill and solid waste disposal facilities within a one-half mile radius of the subject property. The ERIS report found no SWF/LF site listed within one-half mile of the subject property.

5.2.3 Underground Storage Tank (UST) List

Section 8.2.1 of the ASTM standards requires a review of state UST lists for underground tanks listed on the subject site or adjoining properties. No USTs are listed in the ERIS report as being present on or adjacent to the underlying tax parcels. Residential heating oil USTs are not registered with the State of Washington. Residential heating oil USTs are discussed in Section 6.2 of this report.

5.2.4 Leaking Underground Storage Tank (LUST) List

Section 8.2.1 of the ASTM standards requires a review of state LUST lists for possible contaminated sites within a half-mile radius of the subject property. Many LUST sites are listed under the Independent Cleanup Report (ICR) database or the Voluntary Cleanup Program (VCP) Database. Our search found one LUST site within a one-half mile radius of the boundaries of the site.

Site Name/Address	Location	Notes
North End Annex Seattle School District 13720 Roosevelt Way N Seattle, Washington	Approximately 0.44 miles south and upgradient of the subject site.	This site had a release of diesel that impacted soils and groundwater. The site has been cleaned up and has been given No Further Action Status by Ecology.

Based on its status, it is our opinion that the LUST site is not a REC associated with the site.

5.2.5 SPILLS

Section 8.2.1 of the ASTM standards requires a review of federal ERNS listings on the property. The state SPILLS database records and stores information on reported releases of oil and hazardous substances equivalent to the ERNS database. The ERIS search found 3 ERNS events within 0.21 miles of the site. The events were (1) a small petroleum spill from a motor vehicle, on February 2, 2006, (2) a small hydraulic oil spill from a commercial truck, on January 4, 2016, and (3) 1 cup of hydraulic oil spill from a construction/utility vehicle, on June 1, 2018. The impact of the three minor spills was surface road and parking area contamination. It is our opinion that these surface spills are not RECs associated with the site.

6.0 OTHER HAZARDS**6.1 PCBs and Transformers**

Polychlorinated biphenyls (PCBs) are associated with electrical transformer fluids and ballasts in older fluorescent light fixtures. The use of PCBs in transformer fluids was discontinued in units manufactured after 1977. We did not observe any transformers on the subject site. There are pole-mounted transformers in the adjacent right-of-way. Transformers are the property of the local utility that is generally also responsible for leakage or spills from the transformers.

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6.2 On-Site USTs/ASTs

Based on the original tax records, each of the houses were originally heated with oil furnaces. The age of the houses suggests that the tanks were placed underground. Most of the houses have been converted to electric, natural gas, or baseboard heat. The past and current presence of heating oil USTs is considered a REC associated with the site.

This is the current inventory of the parcels and the current status of their current or former heating oil USTs/heating systems. None of the UST cavities have had assessments to determine if releases had occurred. During redevelopment, each UST cavity will be assessed.

Table 1
Heating Oil UST Summary

Parcel Number	Address	Notes
777130-0055	2105 N 148th Street Shoreline, WA 98133	The house is listed as having been completed in 1948. The current heat source is listed as natural gas. No vents or fillers were visible.
777130-0060	14718 Meridian Ave N Shoreline, WA 98133	The house is listed as having been completed in 1948. The current heat source is listed as natural gas. The City of Shoreline has a permit that reports the heating oil UST was physically removed in 1997. The UST cavity is shown as being 25 feet north of the southern property line, five feet east of the house and 45 feet west of the eastern property line.
777130-0065	2117 N 148th Street Shoreline, WA 98133	The house is listed as having been completed in 1948. The current heat source is listed as natural gas. No vents or fillers were visible.
777130-0070	2123 N 148th Street Shoreline, WA 98133	The house is listed as having been completed in 1950. The current heat source is listed as heating oil. There is a visible UST vent pipe alongside the front door.
777130-0110	2150 N 147th Street Shoreline, WA 98133	The house is listed as having been completed in 1950. The current heat source is listed as electric baseboards. No vents or fillers were visible.
777130-0115	2142 N 147th Street Shoreline, WA 98133	The house is listed as having been completed in 1948. The current heat source is listed as oil heat. No vent or filler were visible.
777130-0125	2132 N 147th Street Shoreline, WA 98133	The house is listed as having been completed in 1948. The current heat source is listed as natural gas. No vent or filler visible.
777130-0135	2122 N 147th Street Shoreline, WA 98133	The house is listed as having been completed in 1948. The current heat source is listed as electric base board. No vent or filler visible.

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Parcel Number	Address	Notes
777130-0140	2116 N 147th Street Shoreline, WA 98133	This house is reported to have been completed in 1948. The current heat source is listed as electric baseboards and natural gas. The city has records that show a heating oil UST was closed in place in 2001. The UST is shown as being immediately east of the back door to the house.
777130-0145	14710 Meridian Ave N Shoreline, WA 98133	This house is reported to have been completed in 1949. The current heat source is listed as natural gas. No vents or fillers were visible.
777130-0150	14704 Meridian Ave N Shoreline, WA 98133	This house is reported to have been completed in 1949. No vents or fillers were visible. The current heat source is listed as natural gas.

6.3 Clandestine Drug Laboratories (CDL-Meth Labs)

We reviewed the on-line list of clandestine drug laboratories maintained by the SKCPH. The CDL list has no properties that are within the parcels that are addressed by this report. The properties on the CDL list are generally houses, apartments, or hotel rooms associated with a street address. The list was most recently updated on April 26, 2019. None of the parcels that comprise the subject site were found on the list.

6.4 Wells

We reviewed the online well-log database on the Department of Ecology website. No water wells were listed in the database for the site.

6.5 Area Wide Smelter Contamination

We reviewed the current map from Ecology that shows the extent of suspected and known impacts from the area wide Tacoma Smelter Plume (TSP) and Everett Smelter projects. This parcel is shown as outside of the plume impacts from the TSP or the Everett Smelter. Based on our local experience and the existing information, it is our opinion that the TSP and Everett Smelter are not RECs that affect the site.

6.6 Vapor Migration

There are no known plumes of volatile organic compounds in the site vicinity that would result in the potential for vapor migration that would impact the site. The site soils have a low permeability to both air and water. No releases of halogenated or non-halogenated volatile organics are within a quarter mile of the site.

7.0 SUMMARY**7.1 Current Site Use**

The site consists of 11 tax parcels developed with single-family residences. Each of the houses were originally heated with oil. The past and current presence of the heating oil USTs is considered a REC associated with the site.

7.2 Historical Site Use

Prior to the existing houses the site has historically been forest and brush. The historic site use does not constitute a REC for the subject site.

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7.3 Off-site Parcels

Our reconnaissance of the vicinity and of the site indicates there are potential for soil and/or groundwater contamination within a one-mile radius of the site. However, based on the data we reviewed, none of the off-site sources are considered to be RECs.

7.4 Deviations (Data Gaps) For This Study

There is one data gap for this study. We did not obtain real estate disclosure documents for 3 of the 11 parcels within the subject site: King County Tax Parcel Numbers: 7771300110, 7771300065, and 7771300135. We interviewed the owner of Parcel Number 7771300115 during our site visit, during which the homeowners indicated their knowledge and use of a heating oil UST. In Section 4.6.3 of this report, we noted that none of the seven real estate disclosure documents we obtained indicated the homeowners' knowledge of heating oil USTs on those parcels. Given that we detail and discuss the past and/or present use of heating oil USTs as a REC in Section 6.2 of this report, we do not consider this data gap to be significant or material for the purposes of this environmental assessment.

8.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E-1527-13, which satisfies all appropriate inquiry for purposes of 42 USC §960(35)(B) and 40 CFR Part 312, of the Shoreline Townhomes project as described in the title report appended to this report. Any exceptions to, or deletions from, this practice are described in Section 7.4 of this report. This assessment has revealed evidence of one recognized environmental condition (REC) in connection with the property. The REC is the past and/or ongoing use of heating oil for the heat source for each of the houses on-site.

9.0 QUALIFICATIONS/STATEMENTS

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 or 40 CFR Part 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

Project work was performed by Charles R. Lie. The following brief biography summarize the experience of Mr. Lie.

Charles R. Lie, L.E.G., L.H.G., has more than 35 years' of experience in the assessment of contaminated sites, ranging from Phase I ESAs of rural-residential properties to characterization and remediation of parcels ranging from corner gasoline Parcels to industrial facilities. Mr. Lie has 45 years' experience performing hydrogeologic and engineering geologic assessments of sites ranging from large rural tracts to downtown urban properties. His project work has included detailed reviews of historical records, aerial photograph interpretation, geologic mapping, geophysical surveys, monitoring well installation and sampling aquifer testing, hydrogeological interpretation, and report preparation. Mr. Lie has a Bachelor of Science in Geology. He is a licensed Geologist, Hydrogeologist, and UST Assessor in the State of Washington. Mr. Lie is a Certified Asbestos Building Inspector.

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10.0 REFERENCES**10.1 Documents and Publications**

American Society for Testing and Materials (ASTM). 2013. *E-1527-13 Standard Practice for Environmental Site Assessments – Phase I Environmental Site Assessment Process*.

City of Shoreline response to public records request, dated May 22, 2019.

United States Geological Survey (USGS). 1894. *15 Minute Topographic Map of the Seattle Quadrangle*.

United States Geological Survey (USGS). 1895. *30 Minute Topographic Map of the Snohomish Quadrangle*.

United States Geological Survey (USGS). 1900. *30 Minute Land Use Map of the Seattle Quadrangle*.

United States Geological Survey (USGS). 1909. *15 Minute Topographic Map of the Seattle Quadrangle*.

United States Geological Survey (USGS). 1949. *7.5 Minute Topographic Map of the Seattle North Quadrangle*.

United States Geological Survey (USGS). 1968. *7.5 Minute Series Topographic Map of the Seattle North Quadrangle*, Washington and photo revisions.

United States Geological Survey (USGS). 1993. *7.5 Minute Series Topographic Map of the Seattle North Quadrangle*, Washington.

United States Geological Survey (USGS). 2017. *7.5 Minute Series Topographic Map of the Seattle North Quadrangle*, Washington.

10.2 Internet Websites

Google Earth accessed on November 26, 2019.

Historic Aerials (NETR) accessed on December 12, 2019.

<http://www.historicaerials.com/aerials.php>

Historic Map Works accessed on December 12, 2019.

<http://www.historicmapworks.com/>

GLO Land Patents accessed on December 12, 2019.

<https://glorerecords.blm.gov/details/patent/default.aspx?accession=WAOAA%20%20072960&docClass=SER&sid=mvlkp1cl.okr>

King County Auditor's Office, recorded document search accessed on December 6, 2019.

<https://recordsearch.kingcounty.gov/LandmarkWeb/search/index?theme=.blue§ion=searchCriteriaParcelId&qQuickSearchSelection=>

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December 23, 2019

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King County Assessor's Office, current tax records accessed on December 6, 2019.

<https://gismaps.kingcounty.gov/iMap/>

King County Recorder's Office, Official Records Search accessed on December 17, 2019.

<https://recordsearch.kingcounty.gov/LandmarkWeb>

Oregon/Washington BLM/GLO Land Records accessed on December 12, 2019.

https://www.blm.gov/or/landrecords/survey/ySrvy2_popup.php?tr=02600N00400E&srt=A&ti=54&ri=6&ln=10000000

Washington State Department of Natural Resources, subsurface information database, accessed on December 10, 2019. <https://geologyportal.dnr.wa.gov/>

Washington State Department of Ecology Well Log Database accessed on December 10, 2019.

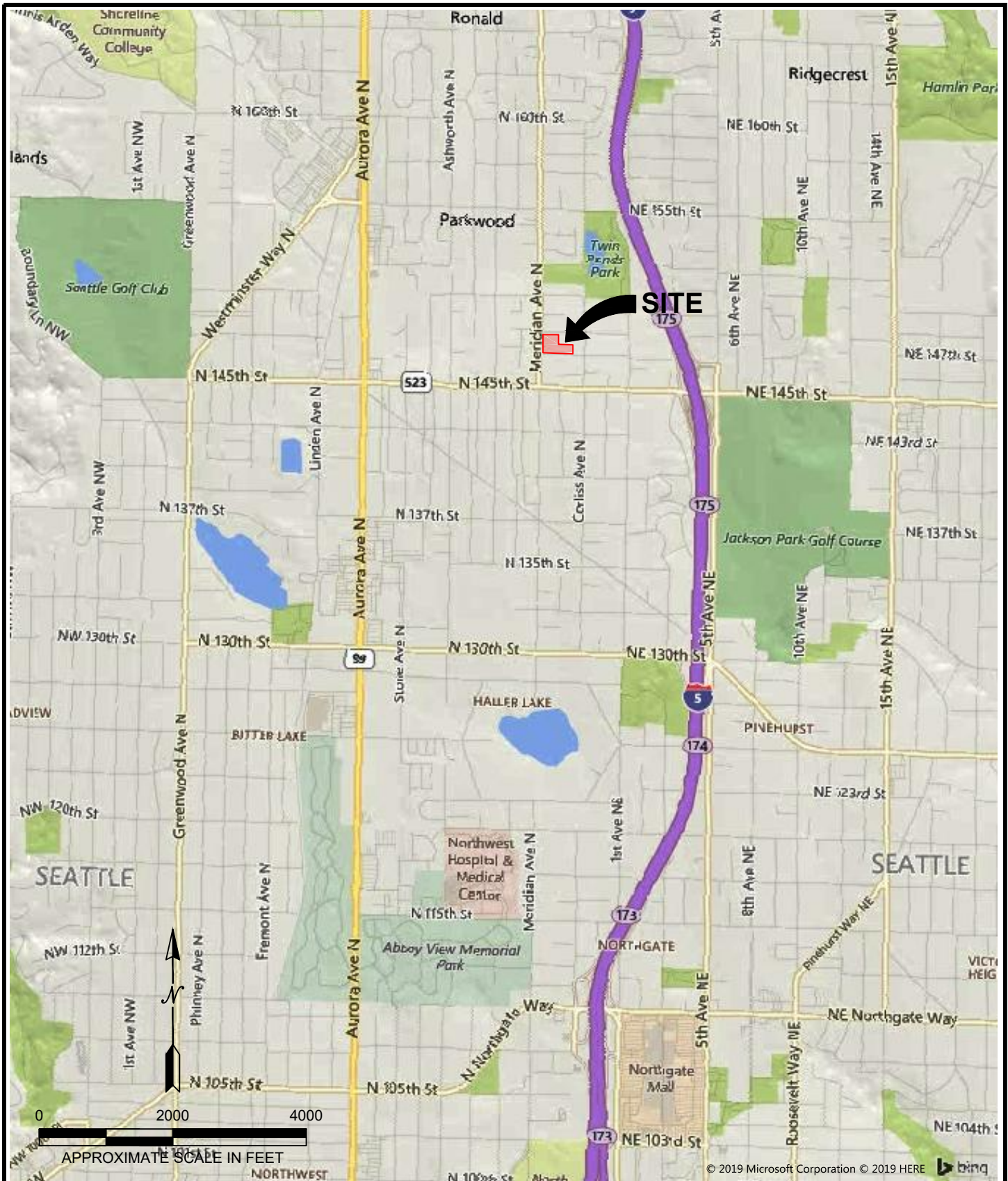
<http://apps.ecy.wa.gov/welllog/textsearch.asp>

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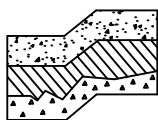
<https://apps.ecology.wa.gov/neighborhood/>

Washington State Department of Ecology, Environmental Covenants Registry accessed on December 10, 2019. <https://fortress.wa.gov/ecy/tcpwebreporting>

Attachment B



ACCESSSED 12/12/19



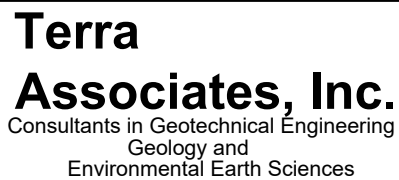
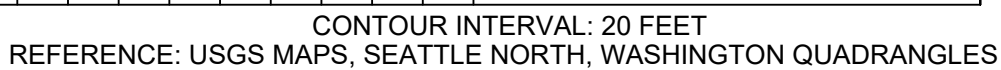
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Environmental Earth Sciences

VICINITY MAP
SHORELINE TOWNHOMES
SHORELINE, WASHINGTON

Proj. No. T-8268-1

Date: DEC 2019

Figure 1



TOPOGRAPHIC VICINITY MAP
SHORELINE TOWNHOMES
SHORELINE, WASHINGTON

Proj. No.T-8268-1

Date: DEC 2019

Figure 2



N 148th Street

North 148th Street

Corliss Ave N

N 147th Street

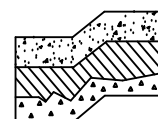
North 14th Street

REFERENCE: <https://www.pictometry.com>

— APPROXIMATE PARCEL BOUNDARY



NOT TO SCALE



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OBLIQUE AERIAL PHOTO
SHORELINE TOWNHOMES
SHORELINE, WASHINGTON

Proj. No.T-8268-1

Date: DEC 2019

Figure 3

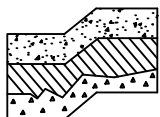
Attachment B



Looking east along N 147th St. from the intersection of Meridian Ave N and N 147th St.



Looking north along Meridian Ave N from the intersection of Meridian Ave N and N 147th St.



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SITE PHOTOS
SHORELINE TOWNHOMES
SHORELINE, WASHINGTON

Proj. No. T-8268-1

Date: DEC 2019

Figure 4

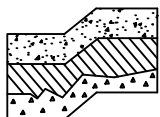
Attachment B



Looking east along N 148th St. from the intersection of Meridian Ave N and N 148th St.



Looking east into a typical residential backyard at address 14718 Meridian Ave N.



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SITE PHOTOS
SHORELINE TOWNHOMES
SHORELINE, WASHINGTON

Proj. No. T-8268-1

Date: DEC 2019

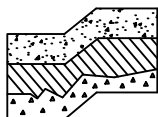
Figure 5



Looking south at a typical front yard of a residential home at address 2117 N 148th St.



Looking west at the fuel port for a heating oil UST at the northeast corner of the house at address 2142 N 147th St.



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SITE PHOTOS
SHORELINE TOWNHOMES
SHORELINE, WASHINGTON

Proj. No. T-8268-1

Date: DEC 2019

Figure 6

Benjamin Wolk

From: Carolyn Decker <CDecker@terra-associates.com>
Sent: Monday, February 1, 2021 10:05 AM
To: Jim Sprott; Gina Brooks; Benjamin Wolk; Jill Burdeen; Tyler Wilcox; Michael Read; Richard Ferry; Mariah Gill
Subject: RE: 5 Degrees

Jim,

Here is our response to the Heating Oil Tank Comment. Also, we have prepared Environmental Media Management Plans for other projects. We can put a similar document together for Pulte if you want.

"Heating oil USTs are widespread and ubiquitous in suburban neighborhoods in Shoreline. In many or most cases, the USTs are no longer in use and are not known to be present by the current home owners. The redevelopment of the site will remove all existing heating oil USTs. All UST removal operations will be performed under appropriate permits from the City of Shoreline and the local fire district. UST removals will be done by contractors with experience in UST management. Each UST cavity will be assessed by a Washington State certified UST assessor. If releases are found to have occurred, the release will be reported to the Washington State Department of Ecology as required by the Model Toxics Control Act, Chapter 173-340 WAC. Cleanup actions will comply with the MTCA and will be reported to the residential heating oil tank program of the Washington State Pollution Liability Agency, <https://plia.wa.gov/heating-oil-technical-assistance-program/>. The actions planned by Pulte Homes will provide No Further Action determinations for each parcel where a release is found to have occurred."

Let me know if you have any questions.

Carolyn S. Decker, P.E.
Project Engineer

TERRA ASSOCIATES, INC.

12220 113th Avenue NE, Suite 130
Kirkland, Washington 98034
Office - 425-821-7777, Ext 103
Fax - 425-821-4334
Cell - 206-255-4988
cdecker@terra-associates.com

From: Jim Sprott <Jim.Sprott@PulteGroup.com>
Sent: Sunday, January 31, 2021 4:28 PM
To: Gina Brooks <GRB@coredesigninc.com>; Benjamin Wolk <ben@boardandvellum.com>; Jill Burdeen <Jill@boardandvellum.com>; Tyler Wilcox <Tyler.Wilcox@PulteGroup.com>; Michael Read <mikeread@tenw.com>; Richard Ferry <Richard.Ferry@Pulte.com>; Mariah Gill <Mariah.Gill@PulteGroup.com>; Carolyn Decker <CDecker@terra-associates.com>
Subject: 5 Degrees

All-

Attachment B

Attached is the table of comments from Shoreline. Other than trees it seems like the comments are relatively straight forward. I hoping there's room for townhomes once we get all the mitigation trees planted. The drainage system will need to be revised a bit as well.

Please review and assess the impacts to the site plan and give me an idea of when we can get back into the City. I need this by 1:00 Tuesday.

Thank you

**Jim Sprott**

Division Director of Land Development and Entitlement

Direct: 425 / 216-3493 Mobile: 206 / 499-0225

www.pultegroup.com*"Building Incredible Places Where People Can Live Their Dreams"*

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COMMUNITY MEETING

Attachment B

WED APR 1

Dear Neighbor:

Hello! You are invited to an **Online Open House** from **April 1st to April 4th** and an opportunity to learn more and provide comments about a proposed new project near N 148th St and Meridian Ave N in Shoreline, which proposes construction of approximately 72 townhome units with attached garages.

Please visit the Online Open House website at

www.requiredoutreach-meridiantownhomes.com

to read the project description, see plans and elevations, and leave comments. You may also provide your email address to receive a Neighborhood Outreach Summary detailing feedback received and any modifications made to the design as a result.

Additionally, we will also host a **Conference Call** to answer questions and respond to neighborhood comments and suggestions:

Date: Wednesday, April 1, 2020

Time: Free ZOOM Teleconference

Event begins promptly at 6pm and will end around 7pm

Details: Call (253) 215-8782

Enter Meeting ID #275-617-277

As our neighbors, it is important for us to engage directly with you as we begin thinking about the design and approach for this project. Our goal at this meeting is for the project team and their architects to share details surrounding the vision and approach for this proposed new project in the neighborhood, as well as listen to further comments or questions you may have.

Proposal: This project proposes construction of approximately 72 townhomes contained within 14 buildings and parking only within the building garages. Currently, the site is zoned MUR-35 and would require building, site development, right-of-way and wastewater permits. As part of the project, eleven existing single-family residences would be demolished. The land use applications required include: Preliminary Formal Plat, Formal Plat, Planned Action Determination and Lot Merger. (Exact addresses: 2105, 2117 and 2123 N 148th St & 2116, 2122, 2132, 2142 and 2150 N 147th St and 14704, 14710 and 14718 Meridian Ave N)

We look forward to hopefully communicating with you soon and encourage you to extend this invitation to any others you may think are interested. If you should have any questions or comments in the meantime, please don't hesitate to contact us at the email or phone number listed below. If you are unable to participate in the Online Open House, you may also email us at MeridianProjects@earlyDRoutreach.com to discuss the project, request mailed/emailed drawings, or to request a copy of the Neighborhood Outreach Summary.

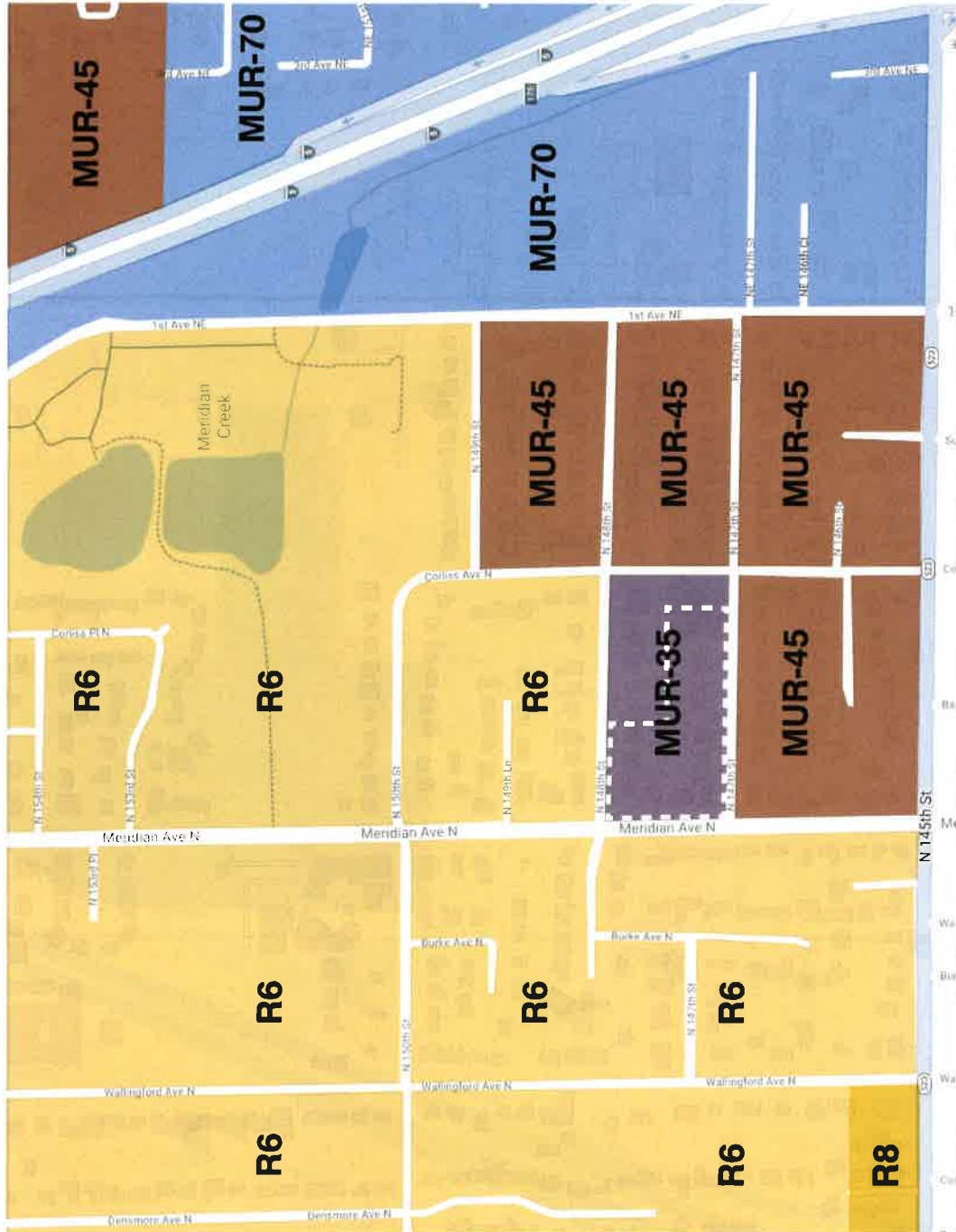
Project Team | Owner: Pulte Homes of Washington | **Architect:** Board & Vellum

Contact: For questions, contact City of Shoreline Planning & Community Development at 206-801-2500, pcd@shorelinewa.gov. To reach the project team directly, contact MeridianProject@earlyDRoutreach.com. (Please note that calls and emails are subject to City of Shoreline public disclosure laws.)

Site Context



Zoning Map



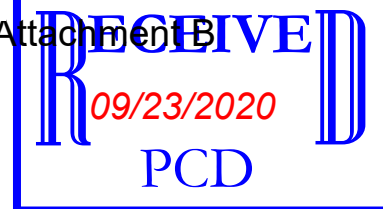
Attachment B



Cate Lee, PCD
17500 Midvale Ave N
Shoreline, WA 98133



9813334905 0025



**2105, 2117 & 2123 N 148th St; 2116, 2122, 2132,
2142 & 2150 N 147th St; 14704, 14710 & 14718 Meridian Ave N Project**
Brief Summary of Outreach Methods and What We Heard from the Community

Project Addresses:	2105, 2117 & 2123 N 148th St; 2116, 2122, 2132, 2142 & 2150 N 147th St; 14704, 14710 & 14718 Meridian Ave N
Brief Description:	This project aims to provide increased housing density to the neighborhood while respecting and responding to the site and existing character of the area. With 72 proposed townhomes contained within 14 buildings and parking only within the building garages, we envision a pedestrian-friendly environment that encourages walking and use of public transportation. As part of this vision, we are also providing nearly double the required open space to respect the beautiful and large grove of trees that exist on this site, which will provide the community with a safe and maintained space for picnics, playdates and games of tag amongst the majestic Douglas Fir trees that are an icon of the Pacific Northwest.
Contact:	Natalie Quick
Applicant:	Pulte Homes
Type of building:	Townhomes
Neighborhood:	Parkwood (Shoreline)

Brief Summary of Outreach Methods

Public Notice

- *Choice:* FLYER
- *Requirement:* Notice of the meeting shall be provided by the applicant and shall include the date, time and location of the neighborhood meeting and a description of the project, zoning of the property, site and vicinity maps and the land use applications that would be required.
- *What we did:* Created a one-page flyer with attachments. Flyer included in Appendix A.
- *Date completed:* March 18, 2020

Electronic/Digital Outreach

- *Choice:* PROJECT WEBSITE
- *Requirement:* Interactive project website (with public commenting function)
- *What we did:* Project website established. Publicized website via flyer. Checked daily for comments from website. Website included in Appendix A.
- *Date completed:* March 23, 2020

Conference Call Outreach

- *Choice:* COMMUNITY MEETING CONFERENCE CALL
- *Requirement:* The neighborhood meeting shall be held anytime between the hours of 5:30 p.m. and 9:30 p.m. on weekdays or anytime between the hours of 9:00 a.m. and 9:00 p.m. on weekends.
- *What we did:* Held a Community Meeting conference call event, open to the public, publicized through flyer and project website. Neighborhood Outreach Summary including comments shared included in Appendix A.
- *Date completed:* April 1, 2020



What We Heard From the Community

Summary of Comments/Questions received via email/website and heard during Conference Call on April 1, 2020:

DESIGN-RELATED COMMENTS

Rooftop Decks + Balconies

Q: *Are you planning any rooftop decks or balconies?*

A: Yes, there will be rooftop decks on some buildings; we're required to provide a certain amount of open space. Building G will probably have some, and we're cognizant of not looking into neighbors' back yards.

Set-Backs

Q: *How far away is the property line from the single-family homes on the other side for Building G and the park?*

A: There is a five-foot set-back on the residential side, however Building B, Building C and Building G will be set further back as we have to provide sidewalks for entrances on the site. Since sidewalks cannot be in set-backs, these buildings will be set back at least nine feet from the property line to provide space for the sidewalks outside of the required five-foot set-back.

NON-DESIGN RELATED COMMENTS

Construction

Q: *When is demolition going to start?*

A: Demolition will likely begin in May 2021 with home construction beginning in the September 2021 timeframe.

Garbage

Q: *Will garbage be consolidated per unit, or where is it located? (via Zoom)*

A: We are still talking with the garbage and trash waste provider, but right now we are planning to have garbage inside units; most units will have individual garbage cans in their garages.

Parking

Q: *How much parking will be available per unit? Our family only has one car, but a lot of people have two or three. I encourage sufficient parking; is there is a way to increase or accommodate more, that is something to think about.*

A: The garages will be a mix of sizes, but most will provide enough room for one full size car with the potential for a smaller car, as well – i.e. a smart car or a mini. The nice thing is that we're located on a bus line, so we're hoping it will encourage people to take public transportation as a more sustainable method of moving around the city.

Q: *What is the width of the entrance to the garages? We'd like to make sure people don't park on the street.*

A: We have a mix of 16-foot wide and 19-foot wide units. The garage will be nine feet on the 16-foot wide units and 16-feet on the 19-foot wide units.

Unit Prices

Q: *Is there a range of prices for these homes? Will you have any affordable housing options?*

A: We haven't figured out pricing yet, but we'll likely be comparing to other homes in the area and there is not an affordable housing component to this project. Some units are smaller two-bedroom, 1,300 sq. ft. units and others are larger, four-bedrooms, 1,700 - 1,800 sq. ft. units. The smaller units are going to be more numerous than the larger units, so that gives folks a sense of where the price ranges might end up.

Sidewalks

Q: *We're very excited that sidewalks are coming in. Will you be putting them in on the entire street of 148th?*

A: We will construct the sidewalk up to the edge of our property, Building B.



Traffic

Q: *What traffic mitigation is proposed? I'm curious if the project is being asked to contribute to any of the station-area upgrades, like the pedestrian bridge across I-5, or any other mitigation measures beyond the boundaries of the site itself.*

A: We are required to complete frontage improvements based on the Transit Center overlay plan. We will also contribute about \$6,700 per unit as mitigation.

Trees

Q: *How will existing trees be dealt with?*

In regards to existing trees, we have enlisted the services of a licensed arborist to evaluate the health and condition of the existing trees on the project site. Based on their report, we will be preserving the largest grove of healthy trees located on the site that also contains a significant number of trees that measure over 30" in diameter. We have located the new common open space to coincide with this grove of trees in order to provide the most benefit to the community and preserve these healthy and majestic stands of trees. This can be seen in the preliminary site plan located at the bottom of the background page on the website.

The City of Shoreline requires that we preserve at least 20 percent of the existing trees. For this project site that means that we will be preserving 23 trees minimum, although our current plan is to preserve around 26 trees. The city also requires that we replace a certain amount of trees removed that are over 30" in diameter. We will be complying with this requirement for any of these size trees that are removed due to poor health, existing damage, or unfortunately in the wrong location.

We appreciate the quantity of trees located on this site as much as you do and have worked closely with arborists to ensure that we retain as many trees as feasible and will be replanting as required to help retain the character of the area.

Q: *What will happen to the stand of tall trees in the middle of the block? Are any trees on the property going to remain, or are you taking out trees? What is the number of trees that will be removed?*

A: There are a good amount of tall trees on the site. We are required to preserve 20 percent, which comes to about 23 trees. We do have to remove some trees where the buildings are, but there are a variety of trees on the site, and the grove we are saving is the largest and most significant set of trees because it is clustered together within common open space. In total, there are about 115 trees on the site, but that includes a mix of sizes including a lot of small scrub trees that are less significant and others that are in poor health. We are doing our best to keep as many as possible.

Q: *When you're selecting new street trees, I'd encourage you to consider planting the same species that are on both sides of Meridian north of the project site. They are really beautiful in spring and fall and help to create a more pleasing pedestrian environment on that street.*

A: Typically, the City requires a specific street tree to coordinate with surrounding streets. We will inform them of the desire to plant the species you noted below and see if that is what they want us to plant.

Walkways

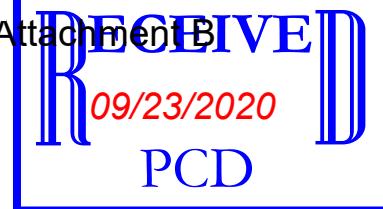
Q: *Will the walkways through the site be publicly accessible or are they only for the use of project residents?*

A: The walkways are intended to be for the use of residents and guests only.

Water

Q: *I want to confirm you are not tapping into the water line? On 148th it says there are to be no new taps.*

A: Seattle Public Utilities (SPU) is managing the water system. They are requiring us to upgrade the water main on 148th as part of our services. We may have to extend the fire hydrant into our site from the 148th side. We'll do some water main work and services but will follow the SPU requirements for making service connections.



Q: *So you might be tapping into the main that goes toward Meridian?*

A: There is a portion of the newer water main along the west end of 140th. We're replacing further east to the edge of the site.

Air Conditioning

Q: *Where will air conditioning unit mechanics be placed in relation to neighbors?*

A: The air conditioning will be ductless, mini-split units and they are very quiet for exterior condenser units. They will be located in a variety of areas given the distance limitations, but we haven't completely decided where. Likely they will mostly be placed on the interior of the site or the sides of buildings. There may be one or two exterior air conditioning units on sides of the buildings where neighbors are, but because of distance limitations they will probably be located mostly on the back side.

Outreach

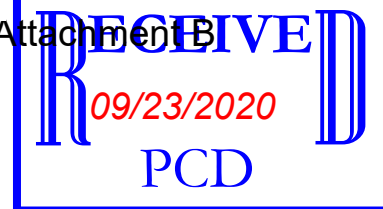
Q: *Will the remaining homes on 147th and 148th be contacted to be part of the new development? Many of us feel our quality of life is going to change for the worse once the demolition starts and likely won't want to live here anymore, so (we) are starting to think about other plans. We're curious about why Pulte didn't reach out to the entire block for purchase, and if they still are planning to or not.*

A: Pulte would be happy to add the remaining owners as a future phase of the development. Pulte was previously told that the remaining neighbors were not interested in selling. Any Neighbors wishing to sell should reach out to Barry Metsker, at barry.metsker@pultegroup.com, or 425-216-3463.

ADDITIONAL COMMENTS

Project

- ***We live on the back side of Building G, and we're very excited for this project.***
- ***We are excited that you are here!***
- ***I like the architectural design and we're excited to see this come to our neighborhood.***



Neighborhood Outreach Summary:
2105, 2117 & 2123 N 148th St; 2116, 2122, 2132, 2142 & 2150 N 147th
St; 14704, 14710 & 14718 Meridian Ave N Project

Zoom Conference Call Meeting Summary + Emailed Comments/Questions

CALL DATE: Wednesday, April 1, 2020, 6:00 – 7:00 p.m. PST

Project Addresses:	2105, 2117 & 2123 N 148th St; 2116, 2122, 2132, 2142 & 2150 N 147th St; 14704, 14710 & 14718 Meridian Ave N
Brief Description:	This project aims to provide increased housing density to the neighborhood while respecting and responding to the site and existing character of the area. With 72 proposed townhomes contained within 14 buildings and parking only within the building garages, we envision a pedestrian-friendly environment that encourages walking and use of public transportation. As part of this vision, we are also providing nearly double the required open space to respect the beautiful and large grove of trees that exist on this site, which will provide the community with a safe and maintained space for picnics, playdates and games of tag amongst the majestic Douglas Fir trees that are an icon of the Pacific Northwest.
Contact:	Natalie Quick
Applicant:	Pulte Homes
Type of building:	Townhomes
Neighborhood:	Parkwood (Shoreline)

DESIGN-RELATED COMMENTS

Rooftop Decks + Balconies

Q: *Are you planning any rooftop decks or balconies?*

A: Yes, there will be rooftop decks on some buildings; we're required to provide a certain amount of open space. Building G will probably have some, and we're cognizant of not looking into neighbors' back yards.

Set-Backs

Q: *How far away is the property line from the single-family homes on the other side for Building G and the park?*

A: There is a five-foot set-back on the residential side, however Building B, Building C and Building G will be set further back as we have to provide sidewalks for entrances on the site. Since sidewalks cannot be in set-backs, the buildings won't be set back.

NON-DESIGN RELATED COMMENTS

Construction

Q: *When is demolition going to start?*

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Q: *Will garbage be consolidated per unit, or where is it located? (via Zoom)*

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Outreach

Q: *Does Pulte have any plans to reach out to the remaining single-family homes on 147th and 148th that are not currently part of the development?*

A: Our project flyer was distributed to all property owners within 500 feet of the proposed project site, and we'll be keeping our Online Open House up until April 4th (and accepting any further comments during that time), as well.

Outreach

Q: *Will the remaining homes on 147th and 148th be contacted to be part of the new development? Many of us feel our quality of life is going to change for the worse once the demolition starts and likely won't want to live here anymore, so (we) are starting to think about other plans. We're curious about why Pulte didn't reach out to the entire block for purchase, and if they still are planning to or not.*

A: Pulte would be happy to add the remaining owners as a future phase of the development. Pulte was previously told that the remaining neighbors were not interested in selling. Any Neighbors wishing to sell should reach out to Barry Metsker, at barry.metsker@pultegroup.com, or 425-216-3463.



ADDITIONAL COMMENTS

Project

- *We live on the back side of Building G, and we're very excited for this project.*
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- *I like the architectural design and we're excited to see this come to our neighborhood.*

Neighborhood Outreach Summary Requests

2105, 2117 & 2123 N 148th St; 2116, 2122, 2132, 2142 & 2150 N 147th St; 14704, 14710 & 14718 Meridian Ave N Project

Project Addresses: 2105, 2117 & 2123 N 148th St; 2116, 2122, 2132, 2142 & 2150 N 147th St; 14704, 14710 & 14718 Meridian Ave N

Brief Description: This project aims to provide increased housing density to the neighborhood while respecting and responding to the site and existing character of the area. With 72 proposed townhomes contained within 14 buildings and parking only within the building garages, we envision a pedestrian-friendly environment that encourages walking and use of public transportation. As part of this vision, we are also providing nearly double the required open space to respect the beautiful and large grove of trees that exist on this site, which will provide the community with a safe and maintained space for picnics, playdates and games of tag amongst the majestic Douglas Fir trees that are an icon of the Pacific Northwest.

Contact: Natalie Quick
Applicant: Pulte Homes
Type of building: Townhomes
Neighborhood: Parkwood (Shoreline)

The following six community members requested copies of the final Neighborhood Outreach Summary.

Community Member Name	Email Address
Amy Delaney	ajdonline@gmail.com
Andrew Bryant	ajustinbryant@gmail.com
Carmel Gregory	carmel.gregory@gmail.com
Lara Weasea	lweasea@gmail.com
Laura Fixler	laurakfixler@gmail.com
Robert Farrington	bobby.farrington@gmail.com





Notice of Preliminary Formal Subdivision Application

October 22, 2020

Name of Applicant and Application No.: Jim Sprott – Pulte Homes of Washington, Inc.; PLN20-0139

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060)

Description of Project: Preliminary Formal Subdivision application to divide eleven (11) parcels into seventy-two (72) townhouse unit lots.

Application Submitted & Complete: Submitted 9/23/2020; Complete 10/19/2020

Project Manager Name & Phone #: Cate Lee, Associate Planner – (206)801-2557

Project Information: Total Lot Area: 106,291 sf Height (Maximum): 35 feet
Zone: MUR-35' Lot Size (Minimum): N/A

Public Comment: The public comment period ends November 5, 2020 at 5:00 p.m. Interested persons are encouraged to mail, fax (206) 801-2788 or deliver comments to City of Shoreline, Attn. Cate Lee, 17500 Midvale Avenue N, Shoreline, WA 98133 or email to clee@shorelinewa.gov. You may also request a copy of the decision once it has been made.

Planned Action Determination of Consistency: The City believes this proposal will qualify as a Planned Action consistent with Ordinance No. 752 Planned Action for the 145th Street Station Subarea and will issue a Planned Action Determination of Consistency after further review.

Open Record Public Hearing: Interested parties are also encouraged to participate in a public hearing tentatively scheduled before the Hearing Examiner in May 2021 in the Council Chamber at City Hall, 17500 Midvale Avenue N, Shoreline, WA. A Notice of Public Hearing will be distributed no later than 15 days prior to the hearing.

Development Regulations Used and Environmental Documents submitted:

Current editions of Shoreline Municipal Code and Comprehensive Plan, Stormwater Manual, Engineering Development Manual, Transportation Master Plan, International Building Codes. Documents received include SEPA Checklist and Technical Information Report (TIR). All documents are available for review by emailing Cate Lee, clee@shorelinewa.gov.

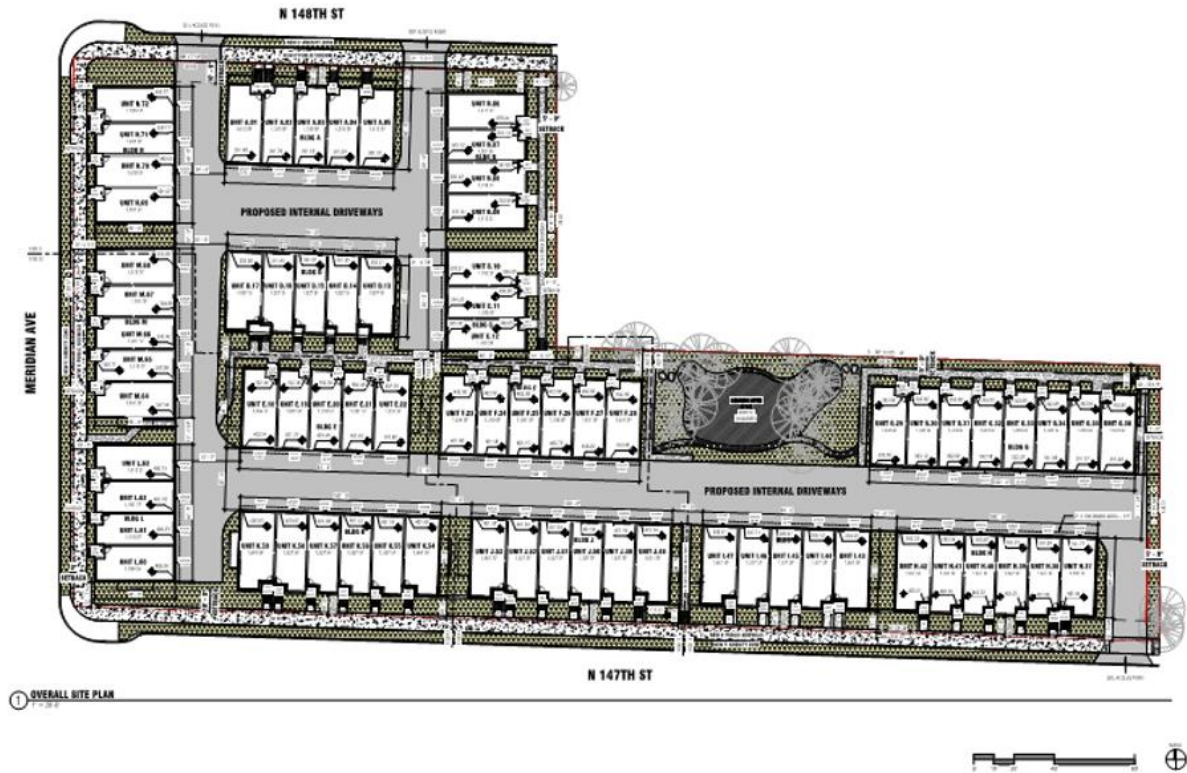
Other Required Permits: Planned Action Determination of Consistency, Lot Merger, Site Development Permit, Building Permits, Wastewater Permits

Notice of Disclosure:

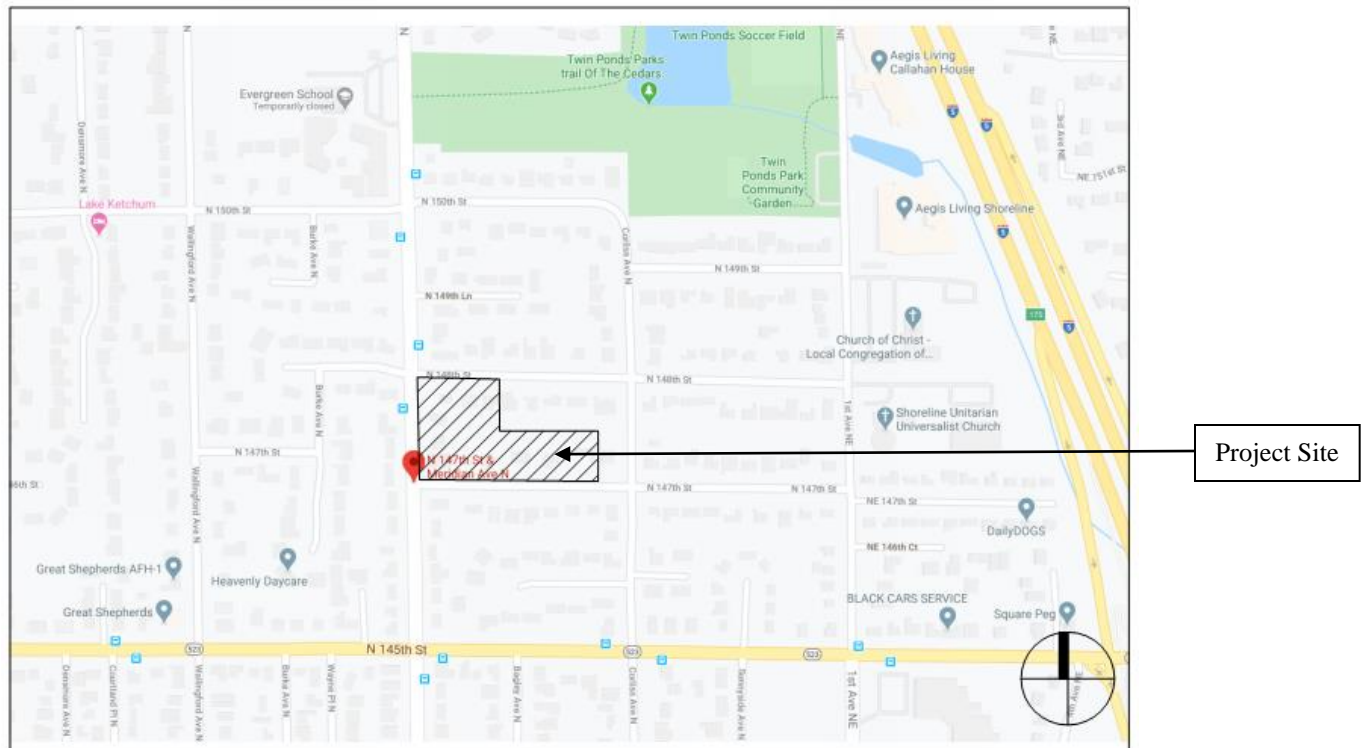
The City of Shoreline will enter all comments received into the public record and may make these comments, and any attachments or other supporting materials, available unchanged, including any business or personal information (name, email address, phone, etc.) that you provide available for public review. This information may be released on the City's website. Comments received are part of the public record and subject to disclosure under the Public Records Act, RCW 42.56. Do not include any information in your comment or supporting materials that you do not wish to be made public, including name and contact information.

Site Plan

2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N



Vicinity Map



To see the aerial map, go to maps.shorelinewa.gov and enter the address.

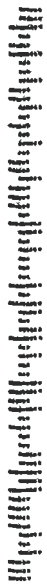


Planning & Community Development
17500 Midvale Avenue North
Shoreline, Washington 98133-4905

Attachment

Cate Lee (PCD)
17500 Midvale Ave N
Shoreline, WA 98133

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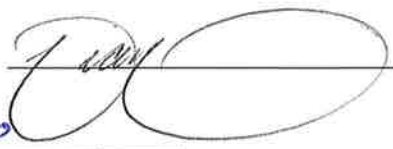
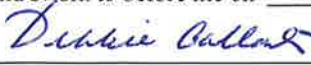
Accounts Payable
City of Shoreline Planning
17500 Midvale Ave N
Shoreline WA 98133

STATE OF WASHINGTON, COUNTIES OF KING AND SNOHOMISH

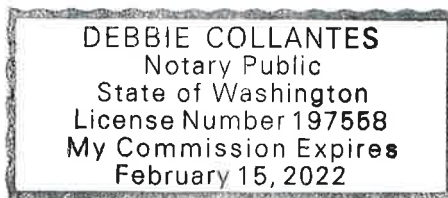
The undersigned, on oath states that he/she is an authorized representative of The Seattle Times Company, publisher of The Seattle Times of general circulation published daily in King and Snohomish Counties, State of Washington. The Seattle Times has been approved as a legal newspaper by others of the Superior Court of King and Snohomish Counties.

The notice, in the exact form annexed, was published in the regular and entire issue of said paper or papers and distributed to its subscribers during all of the said period.

10/22/2020

Agent Frankie Flight Signature 
Subscribed and sworn to before me on 10/23/2020
 **Debbie Collantes**
(Notary Signature) Notary Public in and for the State of Washington, residing at Seattle

Publication Cost: \$223.00
Order No: 3013
Customer No: 214
PO #:



**Notice of Preliminary
Formal Subdivision Application
October 22, 2020**

**Name of Applicant and Application
No.:** Jim Spratt – Pulte Homes of Wash-
ington, Inc.; PLN20-0139

Location: 2105, 2117, and 2123 N 148th
St; 2116, 2122, 2132, 2142, and 2150 N
147th St; 14704, 14710 and 14718 Merid-
ian Ave N (Parcel #7771300055,
7771300065, 7771300070, 7771300140,
7771300135, 7771300125, 7771300115,
7771300110, 7771300150, 7771300145 and
7771300060)

Description of Project: Preliminary
Formal Subdivision application to
divide eleven (11) parcels into seventy-
two (72) townhouse unit lots.

Application Submitted & Complete:
Submitted 9/23/2020;
Complete 10/19/2020

Project Manager Name & Phone #: Cate
Lee, Associate Planner – (206)801-2557

Project Information: Total Lot Area:
106,291 sf. Height (Maximum): 35 feet.
Zone: MUR-35'. Lot Size (Minimum):
N/A

Public Comment: The public comment
period ends November 5, 2020 at 5:00
p.m. Interested persons are encouraged to
mail, fax (206) 801-2788 or deliver
comments to City of Shoreline, Attn.
Cate Lee, 17500 Midvale Avenue N,
Shoreline, WA 98133 or email to
clee@shorelinewa.gov. You may also
request a copy of the decision once it
has been made.

**Planned Action Determination of Con-
sistency:** The City believes this pro-
posal will qualify as a Planned Action
consistent with Ordinance No. 752
Planned Action for the 145th Street Sta-
tion Subarea and will issue a Planned
Action Determination of Consistency
after further review.

Open Record Public Hearing: Inter-
ested parties are also encouraged to
participate in a public hearing tenta-
tively scheduled before the Hearing
Examiner in May 2021 in the Council
Chamber at City Hall, 17500 Midvale
Avenue N, Shoreline, WA. A Notice of
Public Hearing will be distributed no
later than 15 days prior to the hearing.

**Development Regulations Used and
Environmental Documents submi-
tted:** Current editions of Shoreline
Municipal Code and Comprehensive
Plan, Stormwater Manual, Engineering
Development Manual, Transportation
Master Plan, International Building
Codes. Documents received include
SEPA Checklist and Technical Informa-
tion Report (TIR). All documents are
available for review by emailing Cate
Lee, clee@shorelinewa.gov.

Other Required Permits: Planned
Action Determination of Consistency,
Lot Merger, Site Development Permit,
Building Permits, Wastewater Permits

Notice of Disclosure: The City of Shore-
line will enter all comments received
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these comments, and any attachments
or other supporting materials, avail-
able unchanged, including any business
or personal information (name, email
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tact information.



**Revised Notice of Application &
SEPA Comment Period
including Optional SEPA DNS Process
November 23, 2020**

Prior Notice of Application: This proposal is being re-noticed because the project was inadvertently considered eligible as a Planned Action pursuant to Ordinance No 752. The City sent out this prior Notice of Application on October 22, 2020.

Name of Applicant and Application Nos.: Jim Sprott – Pulte Homes of Washington, Inc.;
PLN20-0139, DEV20-1621, ROW20-1678,
ROW20-1694, TWN20-1637, TWN20-1638,
TWN20-1642, TWN20-1643, TWN20-1644,
TWN20-1645, TWN20-1648, TWN20-1652,
TWN20-1655, TWN20-1656, TWN20-1659,
TWN20-1666, TWN20-1672, TWN20-1675

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060)

Description of Project: Preliminary Formal Subdivision application to divide eleven (11) parcels into seventy-two (72) townhouse unit lots. Construction of 72 townhouses, along with associated site and frontage improvements.

Application Submitted & Complete: Submitted 9/23/2020; Complete 10/19/2020

Project Manager Name & Contact: Cate Lee, Associate Planner
(206)801-2557, clee@shorelinewa.gov

Project Information: Total Lot Area: 106,291 sf Height (Maximum): 35 feet
Zone: MUR-35' Lot Size (Minimum): N/A

Environmental Review: The City expects to issue a SEPA Determination of Nonsignificance (DNS) on this project. This may be the only opportunity to comment on the environmental impacts of this proposal. The proposal may include mitigation measures under applicable codes, and the project review process may incorporate or require mitigation measures regardless of whether an environmental impact statement is prepared. A copy of the subsequent threshold determination for the specific proposal may be obtained upon request.

Public Comment: The public comment period ends December 7, 2020, at 5:00 p.m. Note that all comments received on the original Notice of Application are still valid. Interested persons are encouraged to mail, fax (206) 801-2788 or deliver comments to City of Shoreline, Attn. Cate Lee, 17500 Midvale Avenue N, Shoreline, WA 98133 or email to clee@shorelinewa.gov. You may also request a copy of the decision once it has been made.

Attachment B

Open Record Public Hearing: Interested parties are also encouraged to participate in a public hearing tentatively scheduled before the Hearing Examiner in May 2021 in the Council Chamber at City Hall, 17500 Midvale Avenue N, Shoreline, WA. A Notice of Public Hearing will be distributed no later than 15 days prior to the hearing.

Development Regulations Used and Environmental Documents submitted:

Current editions of Shoreline Municipal Code and Comprehensive Plan, Stormwater Manual, Engineering Development Manual, Transportation Master Plan, International Building Codes. Documents received include SEPA Checklist, Environmental Assessment, Traffic Impact Analysis, Stormwater Technical Report, and Geotechnical Report. All documents are available for review by contacting Cate Lee via email at cllee@shorelinewa.gov.

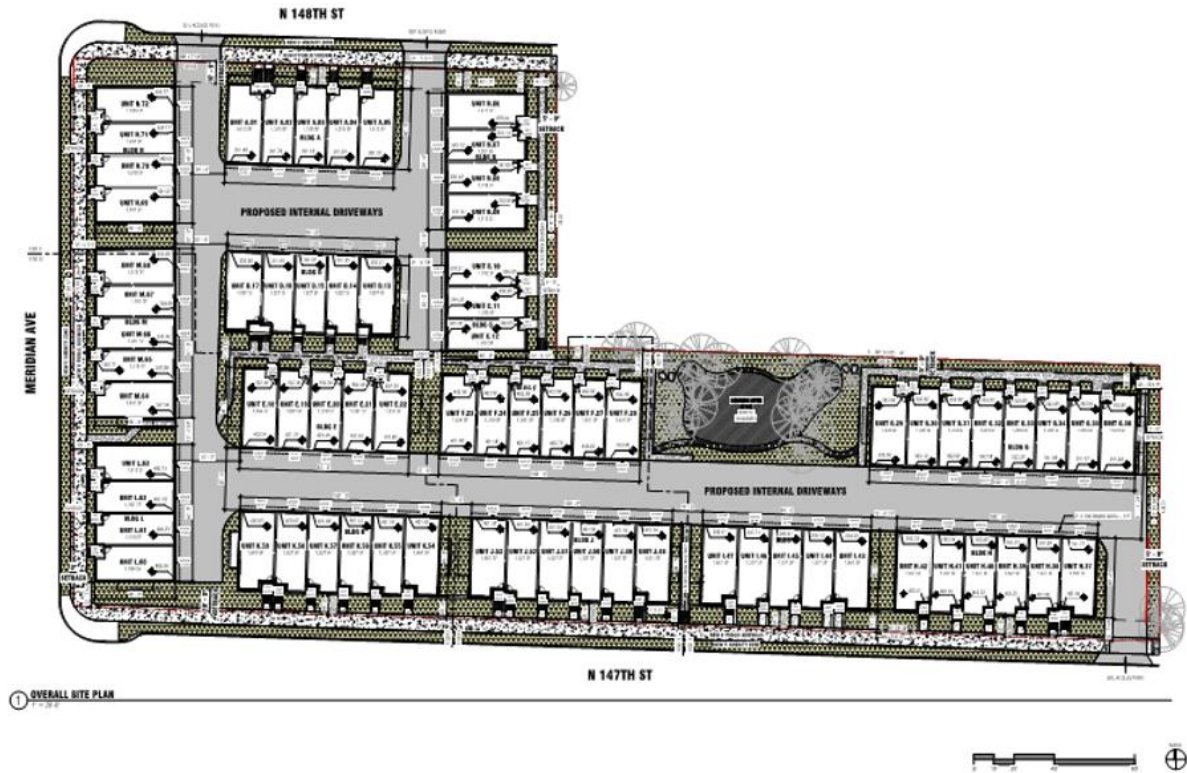
Other Required Permits: Lot Merger, Demolition, Wastewater Connection, Wastewater Developer Extension

Notice of Disclosure:

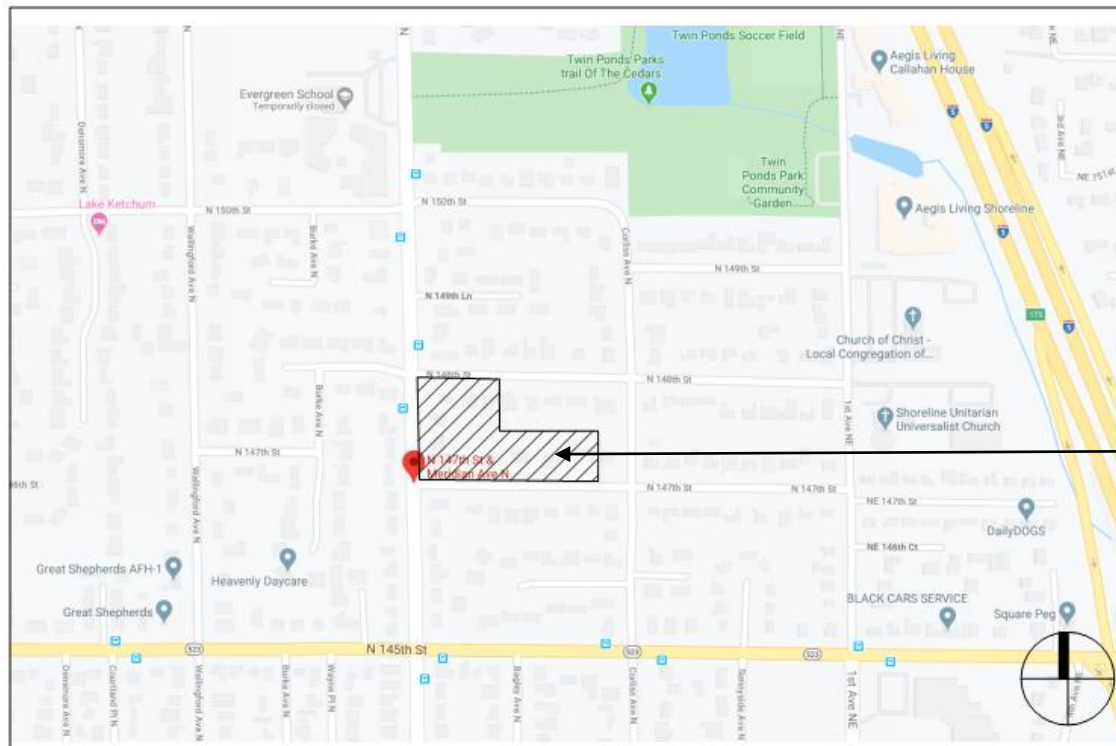
The City of Shoreline will enter all comments received into the public record and may make these comments, and any attachments or other supporting materials, available unchanged, including any business or personal information (name, email address, phone, etc.) that you provide available for public review. This information may be released on the City's website. Comments received are part of the public record and subject to disclosure under the Public Records Act, RCW 42.56. Do not include any information in your comment or supporting materials that you do not wish to be made public, including name and contact information.

Site Plan

2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N



Vicinity Map



To see the aerial map, go to maps.shorelinewa.gov and enter the address.

The Seattle Times

AFFIDAVIT OF PUBLICATION

Accounts Payable
City of Shoreline Planning
17500 Midvale Ave N
Shoreline WA 98133

STATE OF WASHINGTON, COUNTIES OF KING AND SNOHOMISH

The undersigned, on oath states that he/she is an authorized representative of The Seattle Times Company, publisher of The Seattle Times of general circulation published daily in King and Snohomish Counties, State of Washington. The Seattle Times has been approved as a legal newspaper by others of the Superior Court of King and Snohomish Counties.

The notice, in the exact form annexed, was published in the regular and entire issue of said paper or papers and distributed to its subscribers during all of the said period.

11/23/2020

The City of Shoreline Revised Notice of Application & SEPA Comment Period including Optional SEPA DNS Process

Prior Notice of Application: This proposal is being re-noticed because the project was inadvertently considered eligible as a Planned Action pursuant to Ordinance No 752. The City sent out this prior Notice of Application on October 22, 2020.

Location, Application No., Type of permit(s) required and Project Description:

2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060) Preliminary formal subdivision application (PLN20-0139) and development permit applications (DEV20-1621, ROW20-1678, ROW20-1694, TWN20-1637, TWN20-1638, TWN20-1642, TWN20-1643, TWN20-1644, TWN20-1645, TWN20-1648, TWN20-1652, TWN20-1655, TWN20-1656, TWN20-1659, TWN20-1666, TWN20-1672, TWN20-1675) with SEPA environmental review included. Preliminary Formal Subdivision application to divide eleven (11) parcels into seventy-two (72) townhouse unit lots. Construction of 72 townhouses, along with associated site and frontage improvements.

The City expects to issue a SEPA Determination of Non-Significance. This may be the only opportunity to comment on the environmental impacts of this proposal.

The public comment period ends December 7, 2020, at 5:00 p.m. Note that all comments received on the original Notice of Application are still valid. Please mail, fax (206) 801-2788 or deliver comments to City of Shoreline, Attn: Cate Lee, 17500 Midvale Avenue N, Shoreline, WA 98133 or email to cllee@shorelinewa.gov.

Copies of the full notice of application, application materials including SEPA documents and applicable codes are available for review by contacting Cate Lee via email at cllee@shorelinewa.gov.

Agent MAUREEN E DUGGAN

Signature M. Maureen E. Duggan

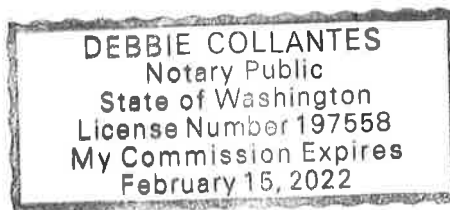
Subscribed and sworn to before me on 11/25/2020

Debbie Collantes

Debbie Collantes

(Notary Signature) Notary Public in and for the State of Washington, residing at Seattle

Publication Cost: \$136.03
Order No: 4204
Customer No: 214
PO #: PLN20-1039





**Revised Notice of Application (2) &
SEPA Comment Period
including Optional SEPA DNS Process
December 4, 2020**

Prior Notices of Application: This proposal is being re-noticed a second time because the required site sign postings were not posted on site by the deadline date. The proposal was re-noticed on November 23, 2020 because the project was inadvertently considered eligible as a Planned Action pursuant to Ordinance No 752. The City sent out this original Notice of Application on October 22, 2020.

Name of Applicant and Application Nos.: Jim Sprott – Pulte Homes of Washington, Inc.;
PLN20-0139, DEV20-1621, ROW20-1678,
ROW20-1694, TWN20-1637, TWN20-1638,
TWN20-1642, TWN20-1643, TWN20-1644,
TWN20-1645, TWN20-1648, TWN20-1652,
TWN20-1655, TWN20-1656, TWN20-1659,
TWN20-1666, TWN20-1672, TWN20-1675

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060)

Description of Project: Preliminary Formal Subdivision application to divide eleven (11) parcels into seventy-two (72) townhouse unit lots. Construction of 72 townhouses, along with associated site and frontage improvements.

Application Submitted & Complete: Submitted 9/23/2020; Complete 10/19/2020

Project Manager Name & Contact: Cate Lee, Associate Planner
(206)801-2557, cleee@shorelinewa.gov

Project Information: Total Lot Area: 106,291 sf Height (Maximum): 35 feet
Zone: MUR-35' Lot Size (Minimum): N/A

Environmental Review: The City expects to issue a SEPA Determination of Nonsignificance (DNS) on this project. This may be the only opportunity to comment on the environmental impacts of this proposal. The proposal may include mitigation measures under applicable codes, and the project review process may incorporate or require mitigation measures regardless of whether an environmental impact statement is prepared. A copy of the subsequent threshold determination for the specific proposal may be obtained upon request.

Public Comment: The public comment period ends December 18, 2020, at 5:00 p.m. Note that all comments received on the original Notice of Application are still valid. Interested persons are encouraged to mail, fax (206) 801-2788 or deliver comments to City of Shoreline,

Attachment B

Attn. Cate Lee, 17500 Midvale Avenue N, Shoreline, WA 98133 or email to clee@shorelinewa.gov. You may also request a copy of the decision once it has been made.

Open Record Public Hearing: Interested parties are also encouraged to participate in a public hearing tentatively scheduled before the Hearing Examiner in May 2021 in the Council Chamber at City Hall, 17500 Midvale Avenue N, Shoreline, WA. A Notice of Public Hearing will be distributed no later than 15 days prior to the hearing.

Development Regulations Used and Environmental Documents submitted:

Current editions of Shoreline Municipal Code and Comprehensive Plan, Stormwater Manual, Engineering Development Manual, Transportation Master Plan, International Building Codes. Documents received include SEPA Checklist, Environmental Assessment, Traffic Impact Analysis, Stormwater Technical Report, and Geotechnical Report. All documents are available for review by contacting Cate Lee via email at clee@shorelinewa.gov.

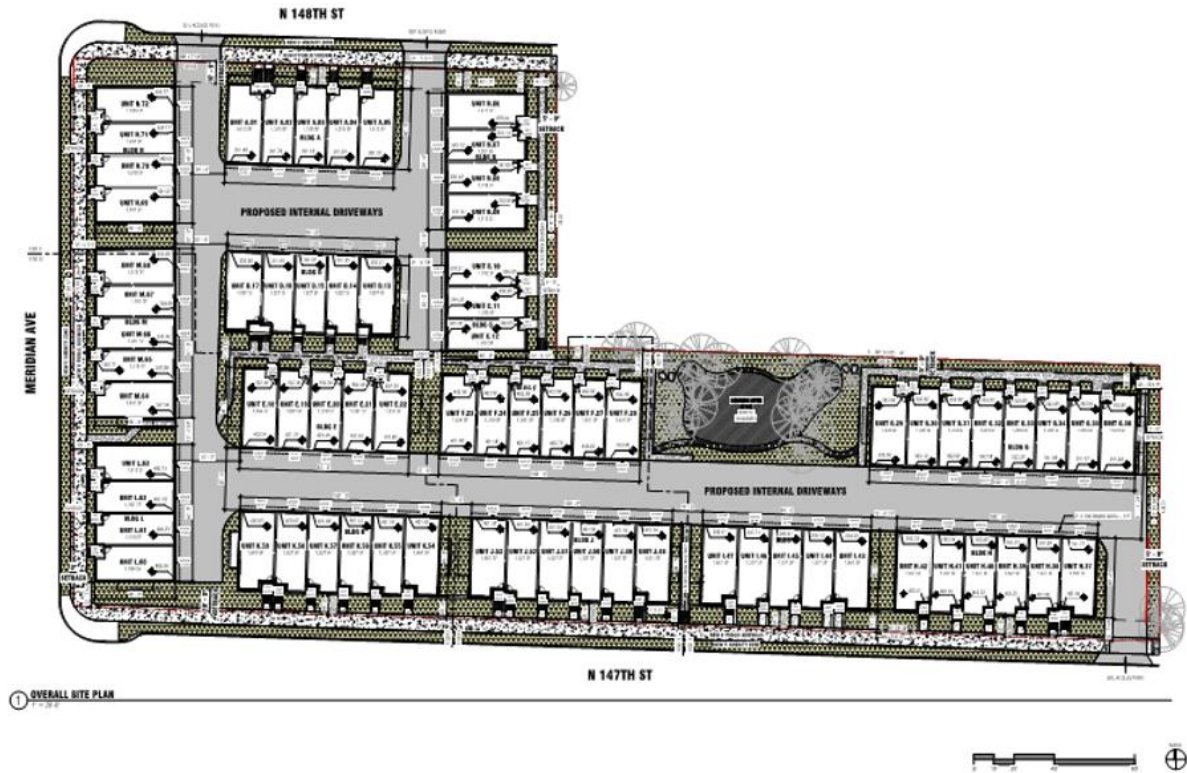
Other Required Permits: Lot Merger, Demolition, Wastewater Connection, Wastewater Developer Extension

Notice of Disclosure:

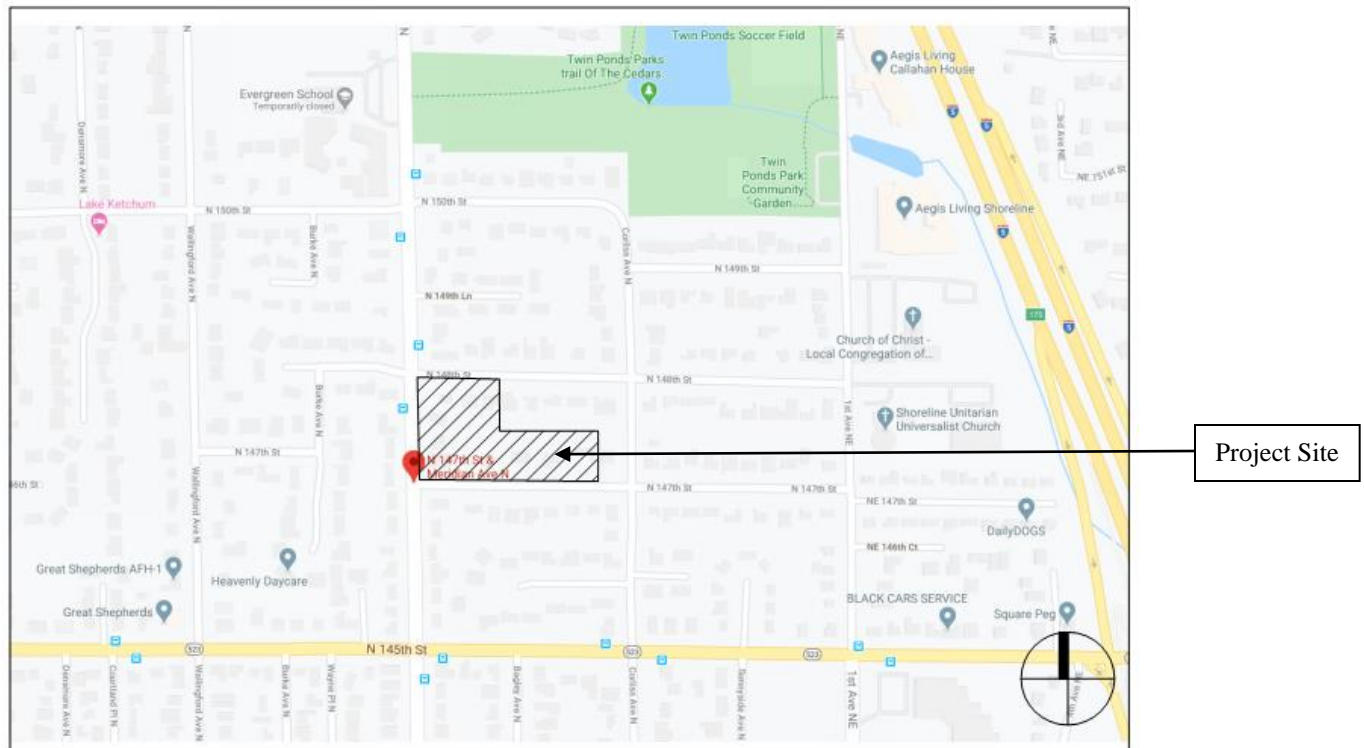
The City of Shoreline will enter all comments received into the public record and may make these comments, and any attachments or other supporting materials, available unchanged, including any business or personal information (name, email address, phone, etc.) that you provide available for public review. This information may be released on the City's website. Comments received are part of the public record and subject to disclosure under the Public Records Act, RCW 42.56. Do not include any information in your comment or supporting materials that you do not wish to be made public, including name and contact information.

Site Plan

2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N



Vicinity Map



To see the aerial map, go to maps.shorelinewa.gov and enter the address.



Planning & Community Development
17500 Midvale Avenue North
Shoreline, Washington 98133-4905

Attachment 1

Cate Lee (PCD)
17500 Midvale Ave N
Shoreline, WA 98133

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PCD

The Seattle Times

AFFIDAVIT OF PUBLICATION

Adam Matza
City of Shoreline Planning
17500 Midvale Ave N
Shoreline WA 98133

STATE OF WASHINGTON, COUNTIES OF KING AND SNOHOMISH

The undersigned, on oath states that he/she is an authorized representative of The Seattle Times Company, publisher of The Seattle Times of general circulation published daily in King and Snohomish Counties, State of Washington. The Seattle Times has been approved as a legal newspaper by others of the Superior Court of King and Snohomish Counties.

The notice, in the exact form annexed, was published in the regular and entire issue of said paper or papers and distributed to its subscribers during all of the said period.

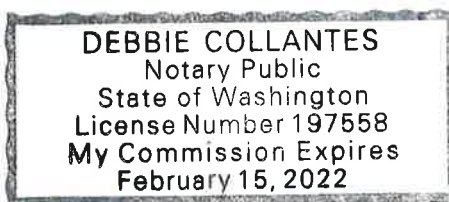
12/04/2020

Agent Sharon Seligman Signature Sharon Seligman

Subscribed and sworn to before me on 12/11/2020
Debbie Collantes **Debbie Collantes**

(Notary Signature) Notary Public in and for the State of Washington, residing at Seattle

Publication Cost: \$258.05
Order No: 4582
Customer No: 214
PO #:



**The City of Shoreline
Revised Notice of Application (2) &
SEPA Comment Period including
Optional SEPA DNS Process**

Prior Notices of Application: This proposal is being re-noticed a second time because the required site sign postings were not posted on site by the deadline date. The proposal was re-noticed on November 23, 2020 because the project was inadvertently considered eligible as a Planned Action pursuant to Ordinance No 752. The City sent out this original Notice of Application on October 22, 2020.

Location, Application No., Type of permit(s) required and Project Description:

2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060) Preliminary formal subdivision application (PLN20-0139) and development permit applications (DEV20-1621, ROW20-1678, ROW20-1694, TWN20-1637, TWN20-1638, TWN20-1642, TWN20-1643, TWN20-1644, TWN20-1645, TWN20-1648, TWN20-1652, TWN20-1655, TWN20-1656, TWN20-1659, TWN20-1666, TWN20-1672, TWN20-1675) with SEPA environmental review included.

Preliminary Formal Subdivision application to divide eleven (11) parcels into seventy-two (72) townhouse unit lots. Construction of 72 townhouses, along with associated site and frontage improvements.

The City expects to issue a SEPA Determination of Non-Significance. This may be the only opportunity to comment on the environmental impacts of this proposal.

The public comment period ends December 18, 2020, at 5:00 p.m. Note that all comments received on the original Notice of Application are still valid. Please mail, fax (206) 801-2788 or deliver comments to City of Shoreline, Attn: Cafe Lee, 17500 Midvale Avenue N, Shoreline, WA 98133 or email to clee@shorelinewa.gov.

Copies of the full notice of application, application materials including SEPA documents and applicable codes are available for review by contacting Cafe Lee via email at clee@shorelinewa.gov.

Publication Cost: \$258.05
Order No: 4582
Customer No: 214
PO #:



Notice of Public Hearing of the Hearing Examiner

Applicant: Pulte Homes of Washington, Inc.

Application No.: PLN20-0139

Permit Requested: Preliminary Formal Subdivision

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060).

Description of Project: Division of eleven (11) parcels of land into seventy (70) lots to facilitate development of seventy (70) townhouse units.

The public hearing is scheduled for Tuesday, January 18, 2022, at 7:00 PM via Zoom Webinar.

Pursuant to Governor Inslee's Proclamation 20-28, as amended, and City Council Resolution No. 459, in an effort to curtail the spread of the COVID-19 virus, the Public Hearing for PLN20-0139 will take place online using the Zoom Webinar platform and the public will not be allowed to attend in-person.

You may join the Public Hearing via Zoom Webinar or listen to the Public Hearing over the telephone.

Public comment will be accepted by submitting written comment or calling into the public hearing to provide oral testimony. Please see the below on how to access all of these options:

- Written Comments: Email the Hearing Examiner Clerk @ hearingex@shorelinewa.gov or mail the comments to the Clerk at City's address shown below. All comments must be received by the Hearing Examiner prior to the close of the public hearing.
- Attend the Public Hearing:
 - via Zoom Webinar: <https://us02web.zoom.us/j/81995036401>
 - via Telephone: (888) 475-4499 (Toll Free) Webinar ID: 819 9503 6401
- Provide Oral Testimony: Email the Hearing Examiner Clerk @ hearingex@shorelinewa.gov by 6:30 p.m. January 18, 2022 to Sign-Up to provide Oral Testimony. At the Hearing Examiner's discretion, public comment may be allowed at the end of the hearing for those that did not sign-up in advance.

Any questions or comments prior to the hearing date should be addressed to the Hearing Examiner Clerk at hearingex@shorelinewa.gov.

Copies of the Notice of Application, SEPA Determination of Nonsignificance, application materials and applicable codes are available by emailing Cate Lee, Senior Planner, at cllee@shorelinewa.gov. A limited number of documents are available on the City's website: <https://www.shorelinewa.gov/government/departments/planning-community-development/records-notices-and-maps/land-use-action-and-planning-notices>.

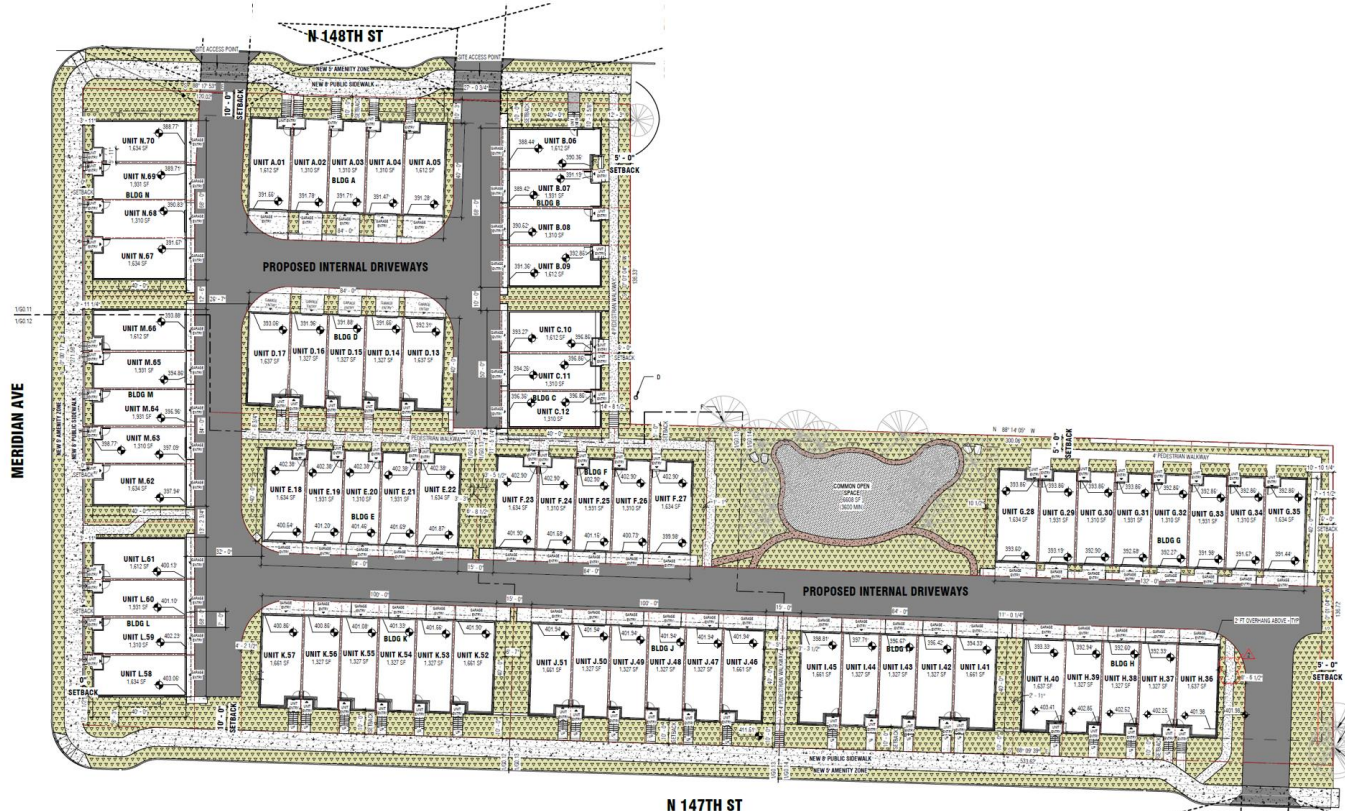
Any person requiring a disability accommodation should contact the Hearing Examiner Clerk at hearingex@shorelinewa.gov in advance for more information. For TTY telephone service call (206) 546-0457. Each request will be considered individually according to the type of request, the availability of resources, and the financial ability of the City to provide the requested services or equipment.

NOTICE OF PUBLIC RECORDS ACT DISCLOSURE

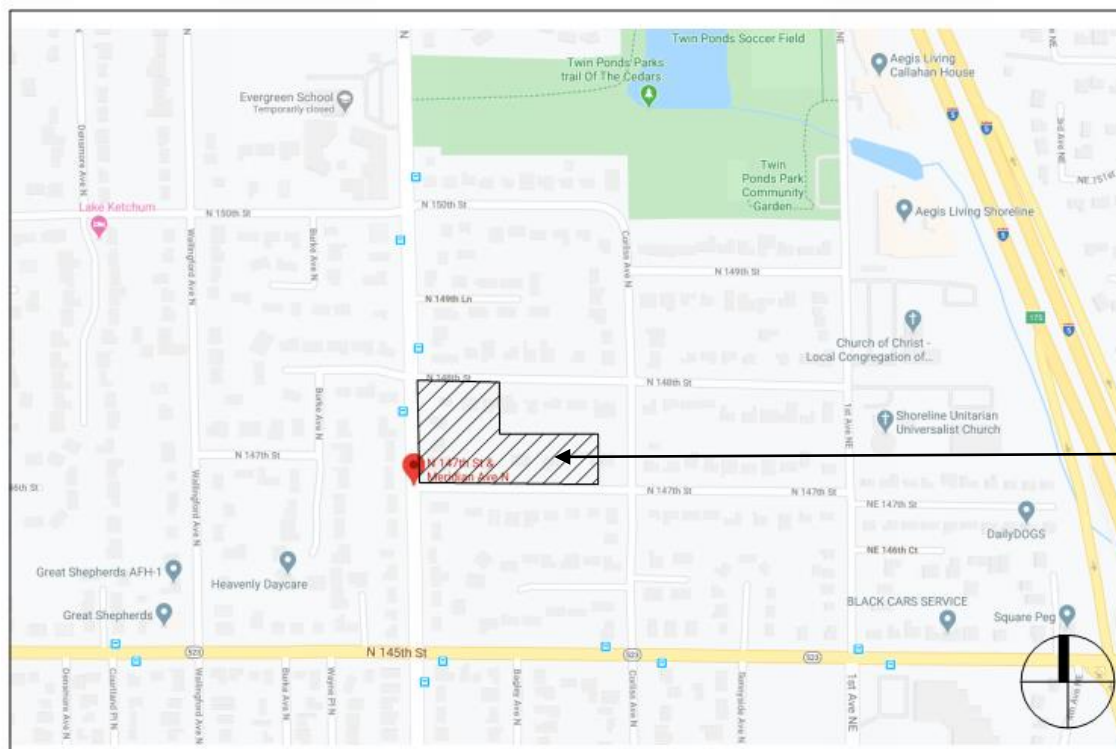
Comments received are part of the public record and subject to disclosure under the Public Records Act, RCW 42.56. The City of Shoreline will enter all comments received into the public record and may make these comments, and any attachments or other supporting materials, available unchanged, including any business or personal information (name, email address, phone, etc.) that you provide available for public review. This information may be released on the City's website. Do not include any information in your comment or supporting materials that you do not wish to be made public, including name and contact information.

Site Plan

2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N



Vicinity Map



Project Site

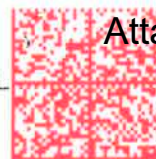
To see the aerial map, go to maps.shorelinewa.gov and enter the address.



Community Development
Midvale Avenue North
Seattle, Washington 98133-4905

SEATTLE WA 980

3 JAN 2022 PM 7 L



Attachment B

EXHIBIT 9
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JAN 05 2022
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Cate Lee, DO NOT OPEN - PLN20-0139

City of Shoreline

17500 Midvale Ave N

98133

Catherine Lee

From: ericsi@seanet.com
Sent: Tuesday, October 27, 2020 3:29 PM
To: Catherine Lee
Subject: [EXTERNAL] proposed townhouse complex on Meridian

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi,

As a Shoreline resident who lives nearby, I just received notice in the mail of a planned 72-unit complex to be built on Meridian between 147th and 148th.

This is a residential neighborhood consisting of single family homes.

Building such a massive complex would have a very destructive impact on traffic and parking. This huge increase in density would greatly change the character of the neighborhood (and probably encourage the building of further large condo or apartment complexes).

Burke Avenue, one block west of Meridian, is a dead end street, and the only ways in or out are Meridian and Wallingford. Anyone who exits onto Meridian would face the substantially increased traffic that this huge complex will inevitably create.

I realize that the developers have all the money and almost always win, but please register my vehement disapproval of this project.

Attachment B

Catherine Lee

From: SEPA Review Notices <SEPA@pscleanair.gov>
Sent: Friday, December 11, 2020 9:42 AM
To: Adam Matza; Catherine Lee
Subject: [EXTERNAL] RE: City of Shoreline - Revised Notice of Application (2) & SEPA Comment Period including Optional SEPA DNS Process

Follow Up Flag: Follow up
Flag Status: Completed

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The Puget Sound Clean Air Agency is submitting the following public comment to this project:

Any project where demolition of structure(s), earth moving and material handling, heavy equipment operations, and/or disposing of vegetative matter is to occur, is subject to Puget Sound Clean Air Agency regulations. The requirements may include, but are not limited to the following:

Agency Regulation I:
 Article 8 – Outdoor Burning
 Article 9 – Emission Control Standards, Section(s) 9.03, 9.11, and 9.15

Agency Regulation III:
 Article 4 – Asbestos Control Standards

Agency Regulations can be viewed in full on our website:
<http://www.pscleanair.gov/219/PSCAA-Regulations>

Thank you,

Puget Sound Clean Air Agency
Sepa@pscleanair.gov

From: Adam Matza <amatza@shorelinewa.gov>
Sent: Thursday, December 3, 2020 3:16 PM
Subject: City of Shoreline - Revised Notice of Application (2) & SEPA Comment Period including Optional SEPA DNS Process

SEPA Administrators,

Please see the Notice of Application PLN20-0139 for a proposed Preliminary Formal Subdivision application to divide eleven (11) parcels into seventy-two (72) townhouse unit lots. Construction of 72 townhouses, along with associated site and frontage improvements. This proposal is being re-noticed a second time because the required site sign postings were not posted on site by the deadline date. The proposal was re-noticed on November 23, 2020 because the project was inadvertently considered eligible as a Planned Action pursuant to Ordinance No 752. The City sent out this original Notice of Application on October 22, 2020.

Attachment B

Attached are the:

1. SEPA Checklist
2. NOA with Optional DNS and Site Plan
3. Request for Comments

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060)

Respectfully,

Planning & Community Development
17500 Midvale Ave N Shoreline, WA 98133
(206) 801-2500

Attachment B

Catherine Lee

From: Barry McGurl <barrymcgurl@gmail.com>
Sent: Saturday, December 12, 2020 9:34 PM
To: Catherine Lee
Subject: [EXTERNAL] Preserving our natural heritage at the Vail Two Apartments project.

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee.

As a Shoreline resident, I'm writing about the Pulte Development Proposal at Meridian Ave and 147th St (the "Vail Two Apartments" project). It's my understanding that 77 townhomes are to be built on a site near the Twin Ponds Park.

I ask that you make preservation of the existing, mature trees a priority when reviewing this development proposal.

It's my understanding there are 88 significant trees on the site and many smaller ones. These trees provide numerous benefits to the Twin Ponds area of Shoreline, including providing wildlife habitat, sequestering carbon dioxide from the atmosphere (thereby reducing global warming), facilitating storm water runoff, and adding aesthetic benefits to the neighborhood.

Replacing so many large, shady trees with homes and pavement will also create a heat island that contributes to excessive summer heat which is increasingly a problem as our average summer temperature rises.

Under the current development plan, only 17 trees will be saved to create a "mini-park." I suggest that 17 trees are not enough. The current development plan maximizes the number of homes on the development site, which is reasonable from a purely business perspective. Shoreline has, however, publicly committed to be an environmentally conscious city that is serious about mitigating climate change. I suggest that the Vail Two Apartments project gives Shoreline an opportunity to honor that commitment.

It does not seem unreasonable to ask the developer to preserve the main grove of large trees and design around as many other trees as possible. For example, the developer might increase the number of tall, narrow homes on the site.

I realize Shoreline is a growing city and there are strong financial pressures to maximize development, but I hope you will do your utmost to preserve our trees and natural heritage for current and future Shoreline residents.

Sincerely,

Barry McGurl.

Catherine Lee

From: Claudia Turner <cjmackturner1@gmail.com>
Sent: Sunday, December 13, 2020 5:49 PM
To: Catherine Lee
Cc: Save Shoreline Trees; City Council
Subject: [EXTERNAL] Pulte Townhouse Development

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee,

I am writing in regards to the proposed Pulte Townhouse development on Meridian Ave N.. & N. 147th.

I share the concerns of many here in Shoreline when thinking about the impact of the loss of approx. 70 Significant Trees. Twin Ponds Park, an important part of the Thornton Creek Watershed, is a mere two blocks north. These large trees are a vital part of an ever shrinking habitat corridor in the 145th St Light Rail Station subarea. With the many large trees removed in the nearby large Arcadia Homes development this site represents one of the few stands remaining to support Twin Ponds.

I don't have to look far to see that the City of Shoreline has expressed concerns in the past regarding environmental needs created by Sound Transit development pressures. See the Park and Open Space Opportunities for Light Rail Station Subareas report, where there is mention of the need for protecting water & air quality, protecting wetlands, noise buffering, creating more open space, etc. Removing these trees clearly contradicts what the City espouses to value.

Another example of City contradiction and disconnect is on the "Climate Change and the City of Shoreline" site, where Forterra's Green Shoreline Partnership program discusses habitat fragmentation as an urban forest threat that "disrupts the connecting corridors used as habitats for birds, amphibians and mammals." Twin Ponds is rich with birds, reptiles, fish and other wildlife (even otters!) that can't thrive without these connecting habitats.

Given the seriousness of this matter I urge, at the very least, additional environmental study and preservation of more than the designated 17 trees to be part of a "mini-park." This can be done through incentives. Shoreline will be better for it.

Sincerely,

Claudia Turner
 Save Shoreline Trees

Catherine Lee

From: Isis Charest <isis.charest@gmail.com>
Sent: Sunday, December 13, 2020 1:08 PM
To: Catherine Lee; save-shoreline-trees@googlegroups.com
Subject: [EXTERNAL] pulte development

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To: Shoreline City Council
 City Planner
 Cate Lee
clee@shorelinewa.gov
 Regarding: Pulte Development Proposal

Dear Ms. Lee,

I am a member of Save Shoreline Trees. I became involved with the importance of Trees after Light Rail felled over 5000 Trees which truly sickened me. Then a Tree yelled out its name to me and I fell to my knees. I can no longer pretend they are not alive Beings and know that they do have a purpose.

Then I get to see that DOT on 160th in Shoreline appears to have no real connection to Trees. They do not understand or care that they sit in a hole with most runoff filtered and absorbed by all the Significant Trees on 'their' property. It's disappointing as the number of these Significant Trees they choose to save becomes less and less.

It's becoming more obvious to me that the City of Shoreline is more interested in development than recognizing the role that Significant Trees play in our city to control climate change; like keeping the air cleaner, keeping us cooler in summer, holding excess water, providing nesting areas for birds, and keeping our city 'alive'! And I have personally heard from these Trees that their trunks hold the consciousness of an area, the consciousness of peace, of love and of stability. When that safety net is gone there is more crime, more homelessness.

And let me remind you that baby Trees the city plants can't perform to that capacity for many years.

Now I hear the Pulte Development also doesn't see the necessity for Trees. Their intention is to build 77 Town Homes on 11 single family lots and to do that they will kill 75 Significant Trees. There are 88 Significant Trees there but they say they 'might' save 17 but of course once they start cutting down those 75 Trees the remaining Significant Trees might not be to their liking or placed exactly where they want and numerous others will be killed as well for a small penalty charge.

So I am asking YOU Cate Lee to ask yourself if you want to live with the decision to kill all these Significant Trees or if the City of Shoreline wants to look at a more expensive future of cleaning up the climate issues that arise because dollar signs were more impressive in making your choices than breathing.

The City of Shoreline needs to plan for future Life not just mman made developments.

Sincerely
 Isis Charest

Catherine Lee

From: andrea gruszecki <innerlight.ws@gmail.com>
Sent: Monday, December 14, 2020 6:18 PM
To: Catherine Lee
Subject: Re: [EXTERNAL] Mazimize TREES not profit at Vail Two complex

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you,
 20% is not enough. And recently, the City allowed another developer to keep a dead cherry tree as "significant", while a mature healthy Madrona was cut down. You will forgive me if I do not trust the City's reassurances.

Peace and Health,

Andrea Gruszecki, ND
19805 Sunnyside Drive N. Apt. K-303
Shoreline, WA 98133
540-379-9796

"Natural forces within us are the true healers of disease" - Hippocrates

On Mon, Dec 14, 2020 at 9:30 AM Catherine Lee <clee@shorelinewa.gov> wrote:

Hello Andrea Gruszecki,

I've entered you as a "party of record" on PLN20-0139 which is for a subdivision into 72 unit lots (fee simple townhouses).

This project is known as "5 Degrees" not "Vail Two Apartments."

The proposal is in the early stages of review and code compliance has not yet been determined in regards to the City's tree regulations (see SMC [20.50.290](#) through .370). Per SMC 20.50.350(B)(1), at least 20 percent (20%) of the significant trees on a given site shall be retained.

Best Regards,



Cate Lee, AICP | Associate Planner
Planning & Community Development Department
17500 Midvale Avenue N, Shoreline, WA 98133
206-801-2557
clee@shorelinewa.gov

Pronouns: she/her

Hours of Operation for Permit Center:

Monday	8:00 a.m. to 5:00 p.m.
Tuesday	8:00 a.m. to 5:00 p.m.
Wednesday	1:00 p.m. to 5:00 p.m.
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Friday	8:00 a.m. to 5:00 p.m.

Permit processing ends at 4:00 p.m. each day

City Hall is **closed** to the public but we are accepting new permit applications. For current submittal options, visit the [Remote Services webpage](#). For permit submittal questions email pcd@shorelinewa.gov or call 206-801-2500.

From: andrea gruszecki <innerlight.ws@gmail.com>
Sent: Sunday, December 13, 2020 1:18 PM
To: Catherine Lee <clee@shorelinewa.gov>
Subject: [EXTERNAL] Mazimize TREES not profit at Vail Two complex

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee,

As a Shoreline resident, I'm writing about the Pulte Development Proposal at Meridian Ave and 147th St (the "Vail Two Apartments" project). It is my understanding that 77 townhomes are to be built on a site near the Twin Ponds Park. I insist that you make preservation of the existing, mature trees a priority when reviewing this development proposal, for the sake of the owls on my property and all urban wildlife.

There are 88 significant trees on the site and many smaller ones. These trees provide numerous benefits to the Twin Ponds area of Shoreline, including providing wildlife habitat, sequestering carbon dioxide from the atmosphere (thereby reducing global warming), facilitating storm water runoff, and adding aesthetic benefits to the neighborhood. In addition, replacing so many large, shade trees with homes and pavement will create yet another heat island that contributes to excessive summer heat which is increasingly a problem as our average summer temperature rises.

Under the current development plan, only 17 trees will be saved to create a "mini-park." Seventeen trees are NOT enough. The current development plan maximizes the number of homes on the development site, which is reasonable from a purely business perspective, but not from a quality of life perspective. Shoreline has, however, publicly committed to be an environmentally conscious city that is serious about mitigating climate change; prove it and let the Vail Two Apartments project gives Shoreline an opportunity to honor that commitment.

It is not unreasonable to educate the developer and insist that they preserve the main grove of large trees and design around as many other trees as possible. For example, the developer might increase the number of tall, narrow homes on the site.

I realize Shoreline is a growing city and there are strong financial pressures to maximize development, but in the end destroying mature trees and minimizing green landscapes will **decrease** Shoreline's desirability as a residential area. Please stop building a concrete jungle for short-term profits and do your utmost to preserve our trees and natural heritage for current and future Shoreline residents.

Peace and Health,

Andrea Gruszecki, ND

19805 Sunnyside Drive N. Apt. K-303

Shoreline, WA 98133

540-379-9796

"Natural forces within us are the true healers of disease" - Hippocrates

Attachment B

Catherine Lee

From: Boni Biery <birdsbeesfishtrees@gmail.com>
Sent: Monday, December 14, 2020 5:18 PM
To: Catherine Lee
Subject: [EXTERNAL] PLN20-0139; Five Degrees by Pulte Homes
Attachments: 20 Dec 14 - Five Degrees.pdf; 20 Dec 14 - Pileated woodpecker.pdf; 20 Dec 14 - Little brown bat.pdf; 20 Dec 14- Snags.pdf; 20 Dec 14 - PHS Report. - Little Brown Bat.pdf

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee,

Please find a letter regarding this development and 4 attachments that go with it. I would like to have all of them included in the planning record.

Thanks you,
Boni Biery

December 14, 2020

Regarding PLN20-0139; Five Degrees by Pulte Homes

Dear Ms. Lee,

Please include me as a person of record regarding this development. I am very concerned about the loss of habitat already created nearby with the removal of thousands of healthy trees and their understory for the construction of the Link light rail line.

It's my understanding that only 17 of the existing 88 trees of significant size are to be retained. This is less than the minimum of 20% which would be 18. I feel a much better retention number would be 60 trees or 80%. This would hopefully retain enough mature trees to sustain the currently established habitat corridor and continue to support the woodpeckers and the bats that rely on these trees.

I believe there is a requirement to consider the cumulative impacts of development and it's obvious this loss would needlessly add to the enormous loss already created by the Link light rail removals. Removing the trees is the first domino in a chain of negative impacts to wildlife and the quality of life for those who live in the area at a time when the Parks Department has indicated it is seeking *"Find opportunities for increased play or active recreation in this area of the city."* (2016.10.28_FINAL BOARD.indd Item #8.) Why not protect the green space that is there for the planned increased density of residents who will occupy the new housing? Following are some good reasons why the vast majority to mature/significant trees should remain.

The number one reason for the ongoing die-off of species and the loss of biodiversity worldwide is the fragmentation of habitat. When the environment a species has adapted to for its survival is removed, it compromises the ability for that species to survive. Without the necessary food and shelter needed the species simply fails.

According to the Washington State Department of Fish & Wildlife (WDFW) list of *Species and Habitats at Risk for King County: Biodiversity Corridors, Old Growth/Mature Forest as being "At Risk" and in need of protection.* The trees on this development site are a portion of the "corridor" that includes Twin Ponds Park. To remove them will not only diminish the amount of mature forest, it will further

fragment the habitat essential to *Pileated Woodpeckers* which is a bird species WDFW identifies as at risk in King County.

These woodpeckers only inhabit large stands of mature trees. They create large nesting holes in dead and dying trees so I encourage them to be retained as well. Pileated woodpeckers create their nests and use them a single nesting season leaving them to become future nesting sites for our owls, squirrels and bats which can't create their own sites. If the woodpeckers fail, so will the owls, squirrels and bats. It's a domino effect.

According to the attached file created using the WDFW "Priority Habitats and Species" online tool shows that in addition to the Pileated woodpecker, this area is *known habitat for the Little Brown Bat*. This bat not only needs the mature trees and the holes created by the woodpeckers for nesting, it must also be near to water like that in the Twin Ponds at the park. Removing this quantity of mature trees in the Twin Ponds habitat corridor will have negative impact on all of these species. And may very well be the reason they will no longer inhabit the area.

I implore you to deny the removal of 80% of the trees from this site. By reducing the construction footprint and/or reconfiguring it to build around the trees will not only enhance the finished development, but limit the fragmentation/loss of habitat for our native wildlife.

"Birds occur in nearly every habitat on the planet and are often the most visible and familiar wildlife to people across the globe. As such, they provide an important bellwether for tracking changes to the biosphere. Declining bird populations across most to all habitats confirm that profound changes are occurring on our planet in response to human activities."

https://www.biologicaldiversity.org/programs/biodiversity/elements_of_biodiversity/extinction_crisis/#:~:text=The%20current%20extinction%20crisis%20is,pushed%20nature%20to%20the%20brink

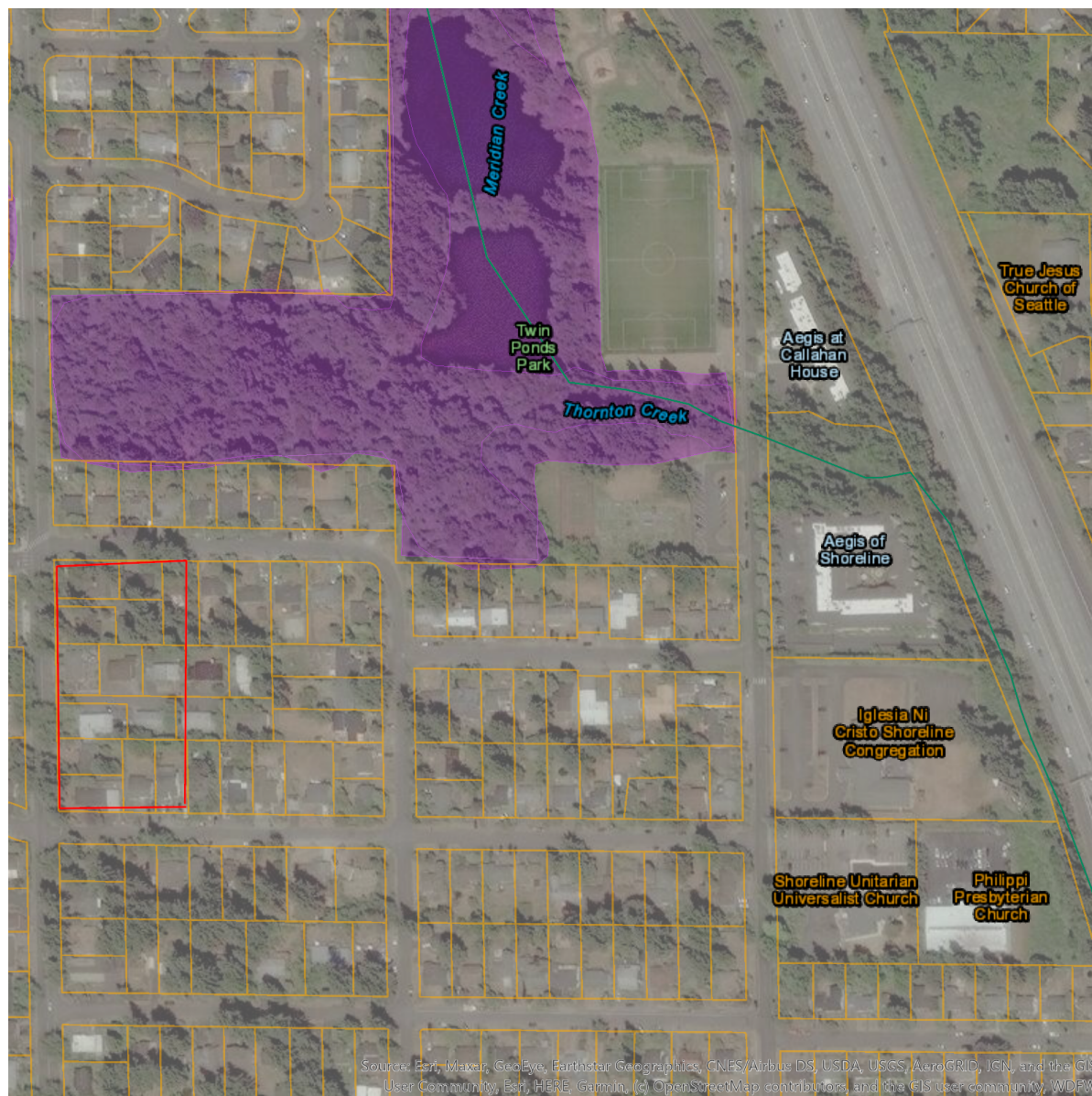
Sincerely,

Boni Biery

Attachments: 20 Dec 14 - PHS Report – Little Brown Bat.pdf
20 Dec 14 - Snags.pdf
20 Dec 14 – Little brown bat.pdf
20 Dec 14 – Pileated woodpecker.pdf



Priority Habitats and Species on the Web



Report Date: 12/14/2020

PHS Species/Habitats Overview:

Occurrence Name	Federal Status	State Status	Generalized Location
Little Brown Bat	N/A	N/A	Yes

PHS Species/Habitats Details:

Attachment B

Little Brown Bat	
Scientific Name	<i>Myotis lucifugus</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release (360-902-2543) for obtaining information about masked sensitive species and habitats.
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	N
Display Resolution	TOWNSHIP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00605

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

Snags - The Wildlife Tree

Dead wood brings new life

Hard to believe, but trees can actually provide more habitats for wildlife dead than when they are alive. Standing dead and dying trees, called “snags” or “wildlife trees,” are important for wildlife in both natural and landscaped settings, occurring as a result of disease, lightning, fire, animal damage, too much shade, drought, root competition, as well as old age.



*Purple martins use a snag for nesting.
Michael Schramm - U.S. Fish and Wildlife Service*

Birds, small mammals, and other wildlife use snags for nests, nurseries, storage areas, foraging, roosting, and perching. Live trees with snag-like features, such as hollow trunks, excavated cavities, and dead branches can provide similar wildlife value. Snags occurring along streams and shorelines eventually may fall into the water, adding important woody debris to aquatic habitat.

Snags enhance local natural areas by attracting wildlife species that may not otherwise be found there. All trees of all sizes are potential snags. Unfortunately, many wildlife trees are cut down without much thought to their wildlife value or of the potential management options that can safely prolong the existence of the tree.

Learn how to identify cavities in snags and conserve habitat for wildlife in this video. You'll be able to use this information the next time you're gathering firewood or setting up a hunting camp to help conserve important habitat.

Wildlife that use snags

More than 100 species of birds, mammals, reptiles, and amphibians need snags for nesting, roosting, shelter, denning, and feeding; nearly 45 species alone forage for food in them. Hollow snags and large knotholes are used by many species of mammals such as squirrels, marten, porcupine, and raccoons.

In winter when snow covers the ground, northern flickers and other common backyard wildlife depend heavily on insects and other foods found in snags. Brown creepers, bats, and other small animals will roost behind loose bark and bark slits for winter warmth and shelter. Hollow snags



are very valuable in winter as they are used by many species such as squirrels, raccoons, owls, and bear for denning and roosting. This high use of snags by a myriad of species underscores the importance of preserving snags and including them in your landscape.

Woodpeckers – the cavity creators

Woodpeckers such as the northern flicker create new cavities in snags and are thus referred to as “primary cavity nesters.” They have thick-walled skulls supported by powerful neck muscles, and a beveled, chisel-like bill. A woodpecker’s strong, grasping feet with sharp, curved nails form a triangular base for

support in the vertical position along with specially adapted tail feathers. The woodpecker’s barb-tipped tongue and sticky saliva help it get insects from deep crevices.

Unlike other cavity-nesting birds, woodpeckers rarely use nest boxes because they are biologically conditioned to dig their own cavities: the physical motions of cavity excavation stimulate reproduction. Woodpeckers excavate several holes each year and rarely nest in the same one in consecutive years, thus creating many cavities for secondary cavity nesters such as bluebirds, tree and violet-green swallows, chickadees, nuthatches, house wrens, wood ducks, squirrels, and owls who cannot excavate cavities themselves. Secondary cavity nesting wildlife are highly dependent upon the availability of these abandoned nest cavities.

Little brown bat (*Myotis lucifugus*)



Little brown bat (*Merlin Tuttle*)

Conservation

Protection of roosts is a priority for conservation.

Where appropriate, steps should be taken to preserve or replace human-made structures used as roosts and to reduce disturbance.

Where eviction from buildings is necessary, actions (e.g., use of suitable exclusion methods, installation of nearby bat houses) should be taken to attempt to reduce negative impacts to bats.

In forests, retention and recruitment of large snags, decadent trees, and hollow trees is important.

On intensively managed forests, management agreements and incentives for protecting large-diameter roost trees are desirable.

Maintaining remnant patches of structurally diverse forest with abundant large snags is another protective strategy.

Providing snags and roost trees within 2-3 km of open water or riparian areas is probably beneficial by providing ready access to drinking and foraging site.

<https://wdfw.wa.gov/species-habitats/species/myotis-lucifugus#conservation>

illaboutbirds.org/guide/Pileated_Woodpecker/id



All About Birds

Birds ▾ Live Cams ▾ Courses ▾ Bird ID

Pileated Woodpecker

★ Overview ID Info Life History

▼ Habitat

Pileated Woodpeckers are forest birds that require large, standing dead trees and downed wood. Forests can be evergreen, deciduous, or mixed and are often old, particularly in the West. In the East they live in young forests as well and may even be seen in partially wooded suburbs and backyards.



© Lori McDonald | Macaulay Library

Catherine Lee

From: GAYLE JANZEN <cgjanzen@comcast.net>
Sent: Monday, December 14, 2020 11:56 PM
To: Catherine Lee
Cc: City Council
Subject: [EXTERNAL] My comments on File #PLN20-0139

Follow Up Flag: Follow up
Flag Status: Completed

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee:

I am very concerned that 70 significant trees will be cut down in the proposed the “5 Degrees” project (City File #PLN20-0139, 14704 Meridian Ave N) Pulte Townhouse development. Saving 17 for a “mini-park” seems like a way to soothe concerned citizens’ feelings when they see so many magnificent trees being destroyed.

It’s frustrating that it’s always, cut down lots of trees to make way for more and more housing. I don’t believe that we can’t save as many trees as possible while also developing property. The status quo is destroying Shoreline’s tree canopy which not only helps combat climate chaos, but is also home to birds and other wildlife. Just because putting the developer’s profits ahead of saving trees has been the norm, doesn’t mean it has to continue since the times we currently live in are rapidly changing and not for the better at this point.

Trees have so much more going on underneath the ground than we can even imagine. I urge you to read this recent NY Times article <https://www.nytimes.com/interactive/2020/12/02/magazine/tree-communication-mycorrhiza.html> if you have a chance. It is a real eye opener about how “trees and fungi form partnerships known as mycorrhizas: Threadlike fungi envelop and fuse with tree roots, helping them extract water and nutrients like phosphorus and nitrogen in exchange for some of the carbon-rich sugars the trees make through photosynthesis.” This symbiotic relationship creates a healthy forest environment that benefits us all. Will taking out 70 significant trees also have a negative impact on the trees and ecosystem at Twin Ponds Park, only two blocks away?

I pray for the day when our significant trees are respected and appreciated for all they do for our urban ecosystems and are given as much priority in the planning of a development as the developers’ profits. Saving old growth trees benefits us all, while developers’ profits benefit only a few.

For the trees,
Gayle Janzen
N. Seattle

Catherine Lee

From: Catherine Lee
Sent: Monday, December 14, 2020 2:44 PM
To: Mary Anderson
Subject: RE: [EXTERNAL] Fwd: Delivery Status Notification (Failure)

Hello Mary Anderson,

Is this regarding the following project?

- PLN20-0139: Preliminary formal subdivision for 72 unit lots, concurrent with construction of 72 townhouse units
- Addresses: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (East side of Meridian Ave N, between N 147th and 148th Streets)
- Applicant: Jim Sprott, Pulte Homes of Washington, Inc.

If so would you like to be a party of record? It means you will be notified when the City makes a SEPA Threshold Determination and decision on the application.

The project is in the early stages of review by City staff for compliance with City codes.

Best Regards,



Cate Lee, AICP | Associate Planner
 Planning & Community Development Department
 17500 Midvale Avenue N, Shoreline, WA 98133
 206-801-2557
clee@shorelinewa.gov
 Pronouns: she/her

Hours of Operation for Permit Center:

Monday 8:00 a.m. to 5:00 p.m.

Tuesday 8:00 a.m. to 5:00 p.m.

Wednesday **1:00 p.m. to 5:00 p.m.**

Thursday 8:00 a.m. to 5:00 p.m.

Friday 8:00 a.m. to 5:00 p.m.

Permit processing ends at 4:00 p.m. each day

City Hall is **closed** to the public but we are accepting new permit applications. For current submittal options, visit the [Remote Services webpage](#). For permit submittal questions email pcd@shorelinewa.gov or call 206-801-2500.

From: Mary Anderson <andmaridell@gmail.com>
Sent: Monday, December 14, 2020 1:03 PM
To: Catherine Lee <clee@shorelinewa.gov>
Subject: [EXTERNAL] Fwd: Delivery Status Notification (Failure)

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Attachment B

----- Forwarded message -----

From: **Mail Delivery Subsystem** <mailer-daemon@googlemail.com>

Date: Sun, Dec 13, 2020, 5:28 PM

Subject: Delivery Status Notification (Failure)

To: <andmaridell@gmail.com>



Address not found

Your message wasn't delivered to cle@shoreline.gov because the domain shoreline.gov couldn't be found. Check for typos or unnecessary spaces and try again.

The response was:

DNS Error: 559750 DNS type 'mx' lookup of shoreline.gov responded with code NXDOMAIN Domain name not found: shoreline.gov

----- Forwarded message -----

From: andmaridell <andmaridell@gmail.com>

To: cle@shoreline.gov

Cc:

Bcc:

Date: Sun, 13 Dec 2020 17:28:14 -0800

Subject: Twin Ponds

I, Mary Anderson, citizen of Shoreline, WA, am opposed to the construction going forward at Twin Ponds located in Shoreline, WA.

There is absolutely no need for new apts, homes, or any other bldgs at the site you have proposed.

Why don't you let the existing apt, townhomes be filled before new construction to begin in Shoreline denoted as homes or living quarters anywhere in the city.

Attachment B

The company that is being allowed to build should go back to Georgia and muck up their state.

Mary Anderson

Sent from my Galaxy Tab® E

Catherine Lee

From: CRAIG SAVAGE <csbando@comcast.net>
Sent: Tuesday, December 15, 2020 4:30 PM
To: City Council
Subject: RE: [EXTERNAL] Save Our Trees!!

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I apologize my being obtuse. I thought my comments had been attached to an earlier list of objections to the new townhouse proposal in the Meridian and 147th area.

My letter was in response to that building proposal. My best instruction about tree removal came from a retired logger who had decided to 'not cut anything older than me!' That pretty much hits it on the nose.

Thanks,

On 12/15/2020 3:24 PM City Council <council@shorelinewa.gov> wrote:

Mr. Savage,

I am just trying to clarify your email for Council. Are you referencing a specific project or just trees in Shoreline in general?

Heidi Costello

City of Shoreline

City Manager's Office

hcostello@shorelinewa.gov-

(206) 801-2214

NOTICE OF DISCLOSURE

The City of Shoreline will enter all comments received into the public record and may make these comments, and any attachments or other supporting materials, available unchanged, including any business or personal information (name, email address, phone, etc.) that you provide available for public review. This information may be released on the City's website. Comments received are part of the public record and subject to disclosure under the Public Records Act, RCW 42.56.

Catherine Lee

From: Catherine Lee
Sent: Monday, December 14, 2020 4:59 PM
To: csbando
Subject: RE: [EXTERNAL] Just a note to express my disbelieve, and disgust with the way in which the City of Shoreline seems to discount our need for our 'canopy'

Hello,

I understand that it is a major concern, but is it regarding a specific proposal? If so I want to make sure I enter you as a party of record on that proposal.

Best Regards,



Cate Lee, AICP | Associate Planner
 Planning & Community Development Department
 17500 Midvale Avenue N, Shoreline, WA 98133
 206-801-2557
clee@shorelinewa.gov
 Pronouns: she/her

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Permit processing ends at 4:00 p.m. each day

City Hall is **closed** to the public but we are accepting new permit applications. For current submittal options, visit the [Remote Services webpage](#). For permit submittal questions email pcd@shorelinewa.gov or call 206-801-2500.

From: csbando <csbando@comcast.net>
Sent: Monday, December 14, 2020 4:46 PM
To: Catherine Lee <clee@shorelinewa.gov>
Subject: RE: [EXTERNAL] Just a note to express my disbelieve, and disgust with the way in which the City of Shoreline seems to discount our need for our 'canopy'

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

major concern!

On 12/14/2020 9:32 AM Catherine Lee <clee@shorelinewa.gov> wrote:

Hello,

Attachment B

Is this in regards to a particular project/proposal? Or just a general concern?

Best Regards,



Cate Lee, AICP | Associate Planner
 Planning & Community Development Department
 17500 Midvale Avenue N, Shoreline, WA 98133
 206-801-2557
clee@shorelinewa.gov

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City Hall is **closed** to the public but we are accepting new permit applications. For current submittal options, visit the [Remote Services webpage](#). For permit submittal questions email pcd@shorelinewa.gov or call 206-801-2500.

From: csbando <csbando@comcast.net>

Sent: Sunday, December 13, 2020 1:51 PM

To: Catherine Lee <clee@shorelinewa.gov>

Subject: [EXTERNAL] Just a note to express my disbelief, and disgust with the way in which the City of Shoreline seems to discount our need for our 'canopy'

Attachment B

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sent from my T-Mobile 4G LTE Device

Attachment B

From: CRAIG SAVAGE <csbando@comcast.net>
Sent: Tuesday, December 15, 2020 3:08 PM
To: City Council <Council@shorelinewa.gov>
Subject: [EXTERNAL] Save Our Trees!!

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

First a wish for Happy Holidays for you and yours.

The most important reason for this short note is to put in my two cents worth as to the need to keep our beauty above the need for destruction of our city. Let them live in Seattle

Please take notice of the need for our 'canopy'.

Thanks,

Craig Savage

North City

Catherine Lee

From: denise estes <dmestes_1@hotmail.com>
Sent: Tuesday, December 15, 2020 10:31 AM
To: Catherine Lee
Subject: Re: [EXTERNAL] Meridian and N 147th St an out of state firm Pulte.

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Yes please, thank you 😊

Denise Estes

From: Catherine Lee <clee@shorelinewa.gov>
Sent: Monday, December 14, 2020 2:40 PM
To: denise estes <dmestes_1@hotmail.com>
Subject: RE: [EXTERNAL] Meridian and N 147th St an out of state firm Pulte.

Okay, thank you for clarifying.

Would you like to be a party of record on this application? It means you will be notified when the City makes a SEPA Threshold Determination and decision on the application.

Here is basic project info:

- Main City File #: PLN20-0139
- Construction Permit #s: DEV20-1621, ROW20-1678, ROW20-1694, TWN20-1637, TWN20-1638, TWN20-1642, TWN20-1643, TWN20-1644, TWN20-1645, TWN20-1648, TWN20-1652, TWN20-1655, TWN20-1656, TWN20-1659, TWN20-1666, TWN20-1672, TWN20-1675, and WWU20-1680 through WWW20-1693
- Applicant: Jim Sprott, Pulte Homes of Washington, Inc.
- Addresses: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (East side of Meridian Ave N, between N 147th and 148th Streets)

The project is in the early stages of review by City staff for compliance with City codes.

Best Regards,



Cate Lee, AICP | Associate Planner
 Planning & Community Development Department
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Attachment B

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From: denise estes <dmestes_1@hotmail.com>
Sent: Monday, December 14, 2020 2:17 PM
To: Catherine Lee <cllee@shorelinewa.gov>
Subject: Re: [EXTERNAL] Meridian and N 147th St an out of state firm Pulte.

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

sounds like a Project... at 147th and Meridian... found out thru facebook on the Shoreline Preservation Society Webpage.... there are some posts about it.

MAJOR ALERT SPS Champions! SEPA Comment Period due Friday, 12/18. Email to cllee@shorelinewa.gov

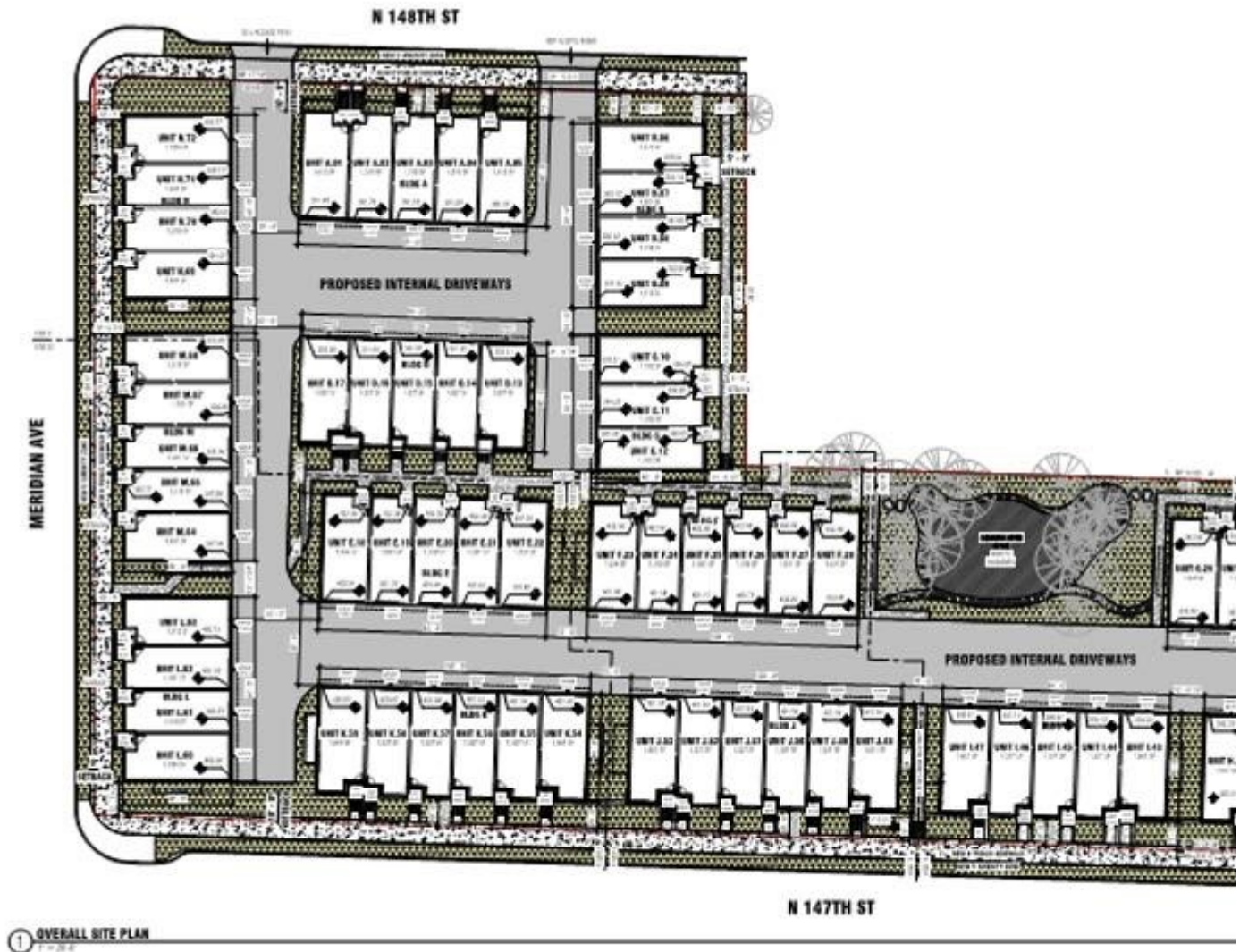
A huge Development is planned in Meridian and N 147th St an out of state firm Pulte.

Over 80 Huge tall trees at risk overlooking Twin Ponds. Major Migratory Bird habitat and Water and Air Quality issues.

Suggest to staff to consider allowing taller buildings to pull back from major tree grove! 

Please help! Especially if you have knowledge of birds or other wildlife at this site or Twin Ponds.

Email Janet with questions: janetway@yahoo.com



From: Catherine Lee <clee@shorelinewa.gov>
 Sent: Monday, December 14, 2020 11:38 AM
 To: Denise Estes <dmestes_1@hotmail.com>
 Subject: RE: [EXTERNAL] Meridian and N 147th St an out of state firm Pulte.

Hello Denise Estes,

Is this in regards to a particular project/proposal? Or just a general concern?

Best Regards,



Cate Lee, AICP | Associate Planner
 Planning & Community Development Department
 17500 Midvale Avenue N, Shoreline, WA 98133
 206-801-2557
clee@shorelinewa.gov
 Pronouns: she/her

Attachment B

Hours of Operation for Permit Center:

Monday 8:00 a.m. to 5:00 p.m.
 Tuesday 8:00 a.m. to 5:00 p.m.
 Wednesday 1:00 p.m. to 5:00 p.m.
 Thursday 8:00 a.m. to 5:00 p.m.
 Friday 8:00 a.m. to 5:00 p.m.

Permit processing ends at 4:00 p.m. each day

City Hall is **closed** to the public but we are accepting new permit applications. For current submittal options, visit the [Remote Services webpage](#). For permit submittal questions email pcd@shorelinewa.gov or call 206-801-2500.

From: webmaster@shorelinewa.gov <webmaster@shorelinewa.gov>

Sent: Monday, December 14, 2020 9:40 AM

To: Catherine Lee <clee@shorelinewa.gov>

Subject: [EXTERNAL] Meridian and N 147th St an out of state firm Pulte.

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Message submitted from the <City of Shoreline> website.

Site Visitor Name: Denise Estes

Site Visitor Email: dmestes_1@hotmail.com

Why on earth are you letting out of state developers ruin our city. STOP with all the tree destruction. Soon we will have nothing left.. The light rail was bad enough with them coming in during nesting season to take down trees. now another development to go in? We have otters, hawks, ospreys, eagles, coyotes, deer, owls, rabbits, turtles, stellar jays, on and on that are losing their habitat because of all this development going on. ENOUGH already.

Catherine Lee

From: stsoming <stsoming@frontier.com>
Sent: Tuesday, December 15, 2020 1:37 PM
To: Catherine Lee
Subject: [EXTERNAL] 5 Degrees comment letter
Attachments: 12-15-20 ST comments re Pulte Homes Meridian project.docx

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee,

Attached is my letter dated 12-15-20 for submission to the SEPA review comment period for the project known as "5 Degrees" by Pulte Homes of Washington. With this submission, I am requesting to be made a party of record for this proceeding.

Thank you,

Susanne Tsoming

December 15, 2020

VIA EMAIL to Clee@shorelinewa.gov

City of Shoreline
Attn: Cate Lee, Associate City Planner
17500 Midvale Ave. N.
Shoreline WA 98133

Re: Notice of Application & SEPA Comment Period, including Optional SEPA DNS Process
Applicant Name: Pulte Homes of Washington, Inc., Attn: Jim Sprott
Address: 14704 Meridian N., Shoreline, WA
Project known as "5 Degrees"
City File #PLN20-0139

Dear Ms. Lee,

With regard to the above-referenced project, my comments concern the building design of the "5 Degrees". I was born and raised in San Francisco, CA. I moved to Seattle in 1974 and over the years, I see that Seattle is resembling San Francisco with its buildings standing shoulder-to-shoulder, concrete sidewalks, few green open spaces and sparse trees. Pulte Homes' building design for 5 Degrees would fit nicely in San Francisco, but not in Shoreline.

In April, 2019, the City's survey results on townhouse design were posted on shorelinewa.gov/townhousedesign. Public comments included, but not limited to, the following:

- Need to be accessible, i.e., "steps must not be only for the young and fit. Every effort should be made to avoid stairs too steep for small children or older adults."
- Vegetation, trees and screening should be a priority.
- A preference for design standards that do not result in all townhouses looking alike.
- A preference for front yard landscaping with screening.
- A preference for foundation landscaping with vertical greening.
- A desire for increased on-site parking for residents and visitors.
- A desire for increased setbacks.
- A desire for decreased density, building height, building coverage.
- Preservation of tall mature trees or the requirement of the planting of native tree species.
- No building from lot line to lot line.

None of the above-listed elements are in Pulte Homes' building design for "5 Degrees".

Pulte Homes's proposal to subdivide the existing 11 parcels into 72 townhouse lots, each possibly 35 feet in height, will create denser housing. Though it is the way for a developer to

City of Shoreline
Attn: Cate Lee, Associate City Planner
December 15, 2020
Page 2 of 2

maximize every square inch of land, it is an inappropriate urban design for the Parkwood neighborhood's treed lots. Currently, Pulte's site plan shows a long row of rooftops without any side, back or front yards. To see an example of Pulte Homes' proposed townhomes is to look online at its completed project, "12 Degrees North" at 14604-35th Ave NE in neighboring Lake Forest Park. It shows a wall of buildings abutting each other. Each unit has an asking price that ranges from approximately \$608,000 to \$961,000. The crowding of the buildings and the stacking of the floors in this urban design gives a claustrophobic feel. Does Parkwood neighborhood residents want to see this urban design in their neighborhood? I suggest that instead of 72 homes, Applicant reduce it to 30 unit lots which would give each subdivided lot more square footage and space to move about and screen with landscaping.

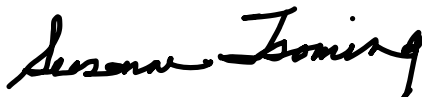
Pulte's current site plan shows no retention of the mature tall conifers that occupy the site. The likely removal of the existing stands of mature trees will aesthetically ruin the site. Their removal and absence will be likely replaced with impervious surfaces for buildings, driveways and parking. One of the benefits of having and retaining mature trees is to mitigate stormwater runoff and surface water. Since the Project site is located within the Twin Ponds Subbasin of the Thornton Creek Watershed, a natural urban watershed, the impact of impervious surfaces will adversely change the flow of water. In Sec. 3.7 of the Thornton Creek Watershed Characterization Report of Nov. 2000, it states as follows:

"Impervious surfaces, such as roads, parking lots, sidewalks, and buildings, cover much of the land in the watershed. Impervious surfaces have altered the water cycle."

"Impervious ratings are not exact. For example, within residential areas the amount of imperviousness can vary from lot to lot depending on the building footprint, driveway size, slope, type of landscaping, and size of yard."

Lastly, I recognize that there is often conflict between the private rights of property owners and municipalities, where the greater good of the community opposes individual property owners. Yet, this is the purpose of a SEPA review and the City, presumably the lead agency, must adhere to the guidelines in Shoreline's Comprehensive Plan, crafted for the benefit of all its residents.

Sincerely,



Susanne Tsoming (stsoming@frontier.com)
Shoreline resident / homeowner

Catherine Lee

From: Carla Carroll <carla.carroll@gmail.com>
Sent: Wednesday, December 16, 2020 3:10 PM
To: Catherine Lee
Cc: City Council
Subject: [EXTERNAL] Regarding PLN20-0139; Five Degrees by Pulte Homes

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee:

I'm writing about the Pulte Development Proposal at Meridian Ave and 147th St for 77 townhomes near the Town Ponds Park. It is my understanding that there are 88 significant trees and the development plan will retain only 17. That this proposal is not "dead on arrival" is alarming and, moreover, puzzling, especially since the city of Shoreline has publicly stated its commitment to mitigating climate change and considers itself a "Tree City".

The benefits of preserving these magnificent trees are many and need to be considered in the development design. Trees have the ability to improve and maintain the quality of water, soil, and to remove pollutants from the air. Trees also provide shade and help lower temperatures during hot weather. Additionally, trees provide habitat for birds and pollinators (Seattle Audubon has reported over 80 different bird species in the Twin Ponds forest!)

If the current proposal to remove these significant trees is approved the community will lose these benefits. I urge you to direct the developer, Pulte Homes, to revise the design and preserve these trees. Preserving the trees will have positive impacts for the development itself and the larger Shoreline community.

Thank you for your consideration.

Carla Carroll

Shoreline Resident

Save Shoreline Trees Member

Attachment B

Catherine Lee

From: Kathleen Russell <krussell@russell-gordon.com>
Sent: Wednesday, December 16, 2020 11:39 AM
To: Catherine Lee
Subject: [EXTERNAL] Pulte Homes/5 Degrees PLN20-0139
Attachments: KRussell_SEPA_Comment_Pulte 5 Degrees.docx

Follow Up Flag: Follow up
Flag Status: Completed

WARNING: The sender of this email could not be validated and may not match the person in the "From" field.

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To: Cate Lee

Attached is my comment letter regarding Pulte Homes/5 Degrees PLN20-0139.

Please add me as a party-of-record to this review.

Thank you,

Kathleen Russell
Resident of Shoreline

December 16, 2020

To: Cate Lee, City of Shoreline, Associate Planner <clee@shorelinewa.gov>

Re: SEPA Comment PLN20-0139

Applicant: Pulte Homes of Washington, Inc.

PLN20-0139; Project: 5 Degrees

Location: parcels along Meridian Ave N between N. 148th and 147th;
and parcels along N. 147th and N. 148th.

Development: 72 townhouses

Dear Ms. Lee,

I am writing this letter to support the 71 tall trees¹ located at the Pulte Homes development site PLN20-0139, in the Parkwood neighborhood of Shoreline. If the design for the 72 townhouses is approved, these significant trees, predominantly Douglas Fir, will be removed. Per applicant's response to question B-4, page 5, on the SEPA Environmental Checklist: "with the exception of a grove of mature evergreen trees, the site will be cleared." In addition, another 10 public street trees will be removed for required right-of-way improvements.

Healthy, Vigorous Trees

As included in the Tree Evaluation by Gilles Consulting, dated May 5, 2020, submitted by the applicant, most of the significant trees at this project site, "have the current health, vigor, structural stability, and wind-firmness to be worthy of consideration for retention".

The design as it has been submitted should not be approved as these 71 tall trees offer environmental protection and health support to Shoreline residents, as do the 10 public street trees.

Environmental Protection for Shoreline Residents

Residents of Shoreline have experienced poor air quality in the last year, due to the effects of climate change and wildfire smoke. There were many "air alert days" in 2020 when residents were cautioned to limit outdoor activities. Certain health conditions are aggravated by unhealthy air which also affect children and seniors. According to treepeople.org²: "Trees combat climate change. Excess carbon dioxide (CO₂) is building up in our atmosphere, contributing to climate change. Trees absorb CO₂, removing and storing the carbon while releasing oxygen back into the air." As a tree ages it can store more carbon, and "70% of carbon storage happens in the last half of a tree's natural life."³ The trees located on the Pulte Homes/5 Degrees project site are 50-70 years, mature carbon-storing trees. In addition, these trees "absorb odors and pollutant gases (nitrogen oxides, ammonia, sulfur dioxide and ozone) and filter particulates out of the

air by trapping them on their leaves and bark,” (treepeople.org). Shoreline’s trees filter stormwater down their trunks and into the ground decreasing the flow of stormwater containing pollutant contaminants to our waterways. These are some of the environment and health benefits the trees situated at the Pulte Homes/5 Degrees project site provide to the residents of Shoreline.

City of Shoreline Study Recommends Large Trees

In 2020, the City of Shoreline published its *Climate Impacts and Resiliency Study*⁴ to “identify climate change impacts and areas of vulnerability”.⁵ This Study recommends “More resilient urban design standards... to ensure development increases city-wide resilience to climate change.” An example provided is to “modify design standards to encourage more vegetation and large trees.” This study also recommends the City, “Plant more evergreen trees. These species will improve water quality and catchment for stormwater, as well as increase carbon sequestration.”⁶ The mature tall trees at the Pulte/5 Degrees site are already doing this work.

Significant Trees at Pulte Homes/5 Degrees Site Should Be Protected

The trees at the Pulte Homes/5 Degrees project site are endangered and if these 71 trees are “cleared”, as stated by the applicant, the loss of benefits these trees provide to the Shoreline community will be substantial.

The best outcome for the environment and for the residents of Shoreline is that these significant trees will be preserved and Pulte Homes will be directed to revise their designs for this development.

I request to be added as a party-of-record to this project review.

Sincerely,

Kathleen Russell
Resident of Shoreline
Save Shoreline Trees Member

¹ Tree Retention Calculation Spreadsheet, page 2 (City Planner notes are calculated in red). PDF attached. Public street trees are not included in this report.

² [treepeople.org website](https://treepeople.org)

³ [As trees age, their climate benefit grows](#) by Torah Kachur, CBC, Aug. 18, 2017

⁴ [Climate Impacts and Resiliency Study](#), 2020, Appendix B. Recommended resilience strategies B-4, B-7

⁵ [City of Shoreline Sustainability Report](#) 2020, page 15, Resilient Communities

Catherine Lee

From: miriamsea@aol.com
Sent: Wednesday, December 16, 2020 1:43 PM
To: Catherine Lee; City Council
Subject: [EXTERNAL] Trees at PLN 20-139: Five Degrees by Pulte Homes

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee,

I am writing about the proposed development

PLN20-139: Five Degrees by Pulte Homes

I am distressed to hear about 88 tall, healthy trees that will be killed in order to make way for this building project.

Housing, business, and development are good things. I support them. But one major reason I live in Shoreline is because of the trees. They are what make this city special. Other concerned Shoreline residents probably have written to you citing technical and scientific data. I am more of a generalist. Without being a specialist, even an ordinary person knows of the health benefits, ecological benefits, aesthetic benefits, and humanizing benefits of mature large trees. They are a resource to be treasured, not obliterated or "replaced" with spindly substitutes that will take decades to equal what is lost.

Please steward the resources of our city wisely.

Sincerely,

Miriam Adeney, Ph.D.
732 N. 150th St. Shoreline
Member, Save Shoreline Trees

Catherine Lee

From: Rebecca Jones <rebjones@rebjones.com>
Sent: Wednesday, December 16, 2020 5:16 PM
To: Catherine Lee
Subject: [EXTERNAL] SEPA Comment PLN20-0139
Attachments: SEPA Comment PLN20-0139.docx

WARNING: The sender of this email could not be validated and may not match the person in the "From" field.

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December 16, 2020

To: Cate Lee, City of Shoreline, Associate Planner <clee@shorelinewa.gov>

Re: SEPA Comment PLN20-0139

Applicant: Pulte Homes of Washington, Inc.

PLN20-0139; Project: 5 Degrees

Location: parcels along Meridian Ave N between N. 148th and 147th;

and parcels along N. 147th and N. 148th.

Development: 72 townhouses

Dear Cate Lee,

I am writing to speak for the 71 tall trees that are on the chopping block to build the development located at the Pulte Homes development site PLN20-0139, in the Parkwood neighborhood of Shoreline. I ask that the designs be revised to save all of the trees on this property.

Attachment B

The loss of these significant trees would be devastating to the community and the environment. We are all experiencing increasing stifling temperatures in the summer and more extreme rainfall in the winter. These trees, and those of this same size and type, are truly our silent barrier of protection from the intense weather we are facing.

These large trees are our best first line of defense against the toxic smoke, increasing heat and heavy rains that impact us all and incidents are only increasing. These trees are a natural filter in cleaning our air. Can you imagine our collective smoke experience this summer without our large evergreen powerhouses? How much longer would we have had to endure the toxic smoke and unable to open our doors and windows?

As we are in our rainy season, I feel it relevant to point out that these 71 trees act as mini-reservoirs, controlling urban stormwater runoff.

These 71 trees intercept 284,000 gallons of stormwater annually.¹

Urban stormwater runoff washes chemicals like oil and gasoline and litter from surfaces such as roadways, roofs and parking lots into our streams and wetlands. The health of our entire ecosystem can be adversely effected by this process. Not to mention property damage due to the increased strain from the elements.

We find ourselves in a time that highlights how we are all connected and asks us to rethink previously held ways of doing things and find new solutions.

A spotlight of opportunity is shining to set a new standard of excellence when approaching projects that are in areas with large conifer trees and preserve these silent powerhouse assets while also building within a community.

Now is the time to show others how to build alongside our large, established conifers rather than through.

Sincerely,

Rebecca Jones

Save Shoreline Trees

I request to be added as a party-of-record to this project review.

¹ <http://www.treebenefits.com/calculator/ReturnValues.cfm?climatezone=Pacific%20Northwest>

December 16, 2020

To: Cate Lee, City of Shoreline, Associate Planner <cllee@shorelinewa.gov>

Re: SEPA Comment PLN20-0139

Applicant: Pulte Homes of Washington, Inc.

PLN20-0139; Project: 5 Degrees

Location: parcels along Meridian Ave N between N. 148th and 147th;
and parcels along N. 147th and N. 148th.

Development: 72 townhouses

Dear Cate Lee,

I am writing to speak for the 71 tall trees that are on the chopping block to build the development located at the Pulte Homes development site PLN20-0139, in the Parkwood neighborhood of Shoreline. I ask that the designs be revised to save all of the trees on this property.

The loss of these significant trees would be devastating to the community and the environment. We are all experiencing increasing stifling temperatures in the summer and more extreme rainfall in the winter. These trees, and those of this same size and type, are truly our silent barrier of protection from the intense weather we are facing.

These large trees are our best first line of defense against the toxic smoke, increasing heat and heavy rains that impact us all and incidents are only increasing. These trees are a natural filter in cleaning our air. Can you imagine our collective smoke experience this summer without our large evergreen powerhouses? How much longer would we have had to endure the toxic smoke and unable to open our doors and windows?

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These 71 trees intercept 284,000 gallons of stormwater annually.¹

Urban stormwater runoff washes chemicals like oil and gasoline and litter from surfaces such as roadways, roofs and parking lots into our streams and wetlands. The health of our entire

ecosystem can be adversely effected by this process. Not to mention property damage due to the increased strain from the elements.

We find ourselves in a time that highlights how we are all connected and asks us to rethink previously held ways of doing things and find new solutions.

A spotlight of opportunity is shining to set a new standard of excellence when approaching projects that are in areas with large conifer trees and preserve these silent powerhouse assets while also building within a community.

Now is the time to show others how to build alongside our large, established conifers rather than through.

Sincerely,
Rebecca Jones
Save Shoreline Trees

I request to be added as a party-of-record to this project review.

¹ <http://www.treebenefits.com/calculator/ReturnValues.cfm?climatezone=Pacific%20Northwest>

Catherine Lee

From: Melody Fosmore <melodyfosmoredesign@gmail.com>
Sent: Thursday, December 17, 2020 3:47 PM
To: Catherine Lee
Cc: Park Board
Subject: [EXTERNAL] Pulte Homes / 5 Degrees PLN20-0139
Attachments: Pulte Homes - 5 Degrees PLN20-0139.pdf

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Cate, hope you are doing well today.

Attached is a comment letter from Save Shoreline Trees regarding Pulte Homes/5 Degrees PLN20-0139. We are also copying the Tree Board.

Sincerely,

Melody Fosmore
Chair, Save Shoreline Trees



Date: December 17, 2020

To: Cate Lee, City of Shoreline, Associate Planner, clee@shorelinewa.gov
cc: PRCS/Tree Board

Re: Notice of Application & SEPA Comment Period, including Optional SEPA DNS Process
- 2105, 2117 and 2123 N. 148th St. / 2116, 2122, 2132, 2142 and 2150 N. 147th St. /
14704, 14710 and 14718 Meridian Ave N.

Applicant Name: Pulte Homes of Washington, Inc., Attn: Jim Sprott
Address: 14704 Meridian Ave N, Shoreline, WA
Project known as "5 Degrees"
City File #PLN20-0139

Summary: Save Shoreline Trees objects to the removal of the tall conifer trees at the Pulte Homes "5 Degrees" development site.

A SEPA review is required for the Pulte Homes "5 Degrees" proposed project in the Parkwood neighborhood of Shoreline, which involves 11 lots to be replaced by 72 townhouse unit lots. Covering nearly a city block, Pulte Homes' intention and site plan to construct 72 single-family attached homes in various block buildings will mean the loss of approximately 81 trees. According to the tree removal calculation by the City Planner, 71 Significant trees, predominantly Douglas fir, will be removed, and approximately 10 public trees will be removed for required right-of-way improvements. Only 17 trees will be retained, and the viability of these trees is questionable due to the impact of adjacent construction.

Removal of these trees deprives citizens of Shoreline.

Aerial and street views of this site located on Meridian Ave. N. between N. 147th and N. 148th Streets clearly show that these mature trees, some 70+ years old, have formed an impressive tree canopy. These tall conifers provide habitat for urban wildlife. In addition, research states that trees have contiguous root systems and communicate with surrounding trees. They protect and benefit life around them, which includes us, the citizens of Shoreline. When these trees are removed, we will lose nature's most resilient and efficient combatants against poor air quality. In this area, tall conifers may appear plentiful, but removal of these trees will deprive citizens of Shoreline of health and well-being. As conscientious land stewards, we object to the removal of the tall conifer trees on the Pulte Homes "5 Degrees" development site.

Attachment B

Reasons for Save Shoreline Trees objection.

Our objection is based on the City's 2012 Comprehensive Plan stating that tall trees in Shoreline, a valuable City asset, need to be protected. Specifically, the following citations illustrate the necessity to protect our tall trees:

Element 1 Land Use

LU6: *Allow flexibility in regulations to protect existing stands of trees.*

Element 2 Community Design

CD16: *Where feasible, preserve significant trees & natural vegetation.*

CD37: *Minimize the removal of existing vegetation, especially mature trees when...developing property.*

Element 6 Natural Environment

NE19: *Minimize removal of healthy trees...*

Furthermore, over the past several years the City of Shoreline has published many documents and plans supporting the benefits of trees and how trees are valued in Shoreline. Recently the City commissioned the *Climate Impacts & Resiliency Study 2020*. This study recommends the importance of protecting vegetation and large trees on development lots, and experts suggest Shoreline “[p]lant more evergreen trees. These species will improve water quality and catchment for stormwater, as well as increase carbon sequestration.”

Shoreline's tall trees and development can co-exist.

Save Shoreline Trees is not opposed to housing and development. Buildings can be designed to preserve our tall trees in Shoreline. The City's 2012 Comprehensive Plan set the guidelines for property development and the City should require development designs remain true to the City of Shoreline guidelines.

The Comprehensive Plan establishes the direction to *minimize the removal of mature trees when developing property*. Save Shoreline Trees asks City Planners, entrusted in their official capacities, to take directed action to support the essential welfare and well-being of Shoreline's citizens.

To preserve and protect more trees on development sites, Save Shoreline Trees has submitted several proposed 'tree' code amendments. We ask the City to move our amendments forward for consideration.

Sincerely,

Save Shoreline Trees, a WA State Non-Profit Corporation

Melody Fosmore, Chair; melodyfosmoredesign@gmail.com

Kathleen Russell, Communications

Save Shoreline Trees Advisory Board

Susanne Tsoming

Kathy Kaye

Barbara Johnstone

Claudia Turner

Kathleen Russell

Catherine Lee

From: Ramona Gault <sheepyspinner@gmail.com>
Sent: Thursday, December 17, 2020 5:11 PM
To: Catherine Lee
Subject: [EXTERNAL] PLN20-0139; Five Degrees by Pulte Homes

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Date: Dec. 17, 2020

To Cate Lee, City Planner

Regarding PLN20-0139; Five Degrees by Pulte Homes

Location: parcels along Meridian Ave N between N. 148th and 147th;
 and parcels along N. 147th and N. 148th.

Development: 72 townhouses

Dear Ms. Lee:

I am writing about the 71 mature Douglas fir trees at the proposed Pulte Homes development site PLN20-0139, in the Parkwood neighborhood. If the design for the 72 townhouses is approved, these significant trees, predominantly Douglas fir, will be destroyed. Per applicant's response to question B-4, page 5, on the SEPA Environmental Checklist: "with the exception of a grove of mature evergreen trees, the site will be cleared." In addition, another 10 public street trees would be removed for required right-of-way improvements.

I share the concerns of many here in Shoreline when thinking about the impact of the loss of these Significant Trees. Twin Ponds Park, an important part of the Thornton Creek Watershed, is a mere two blocks north. These large trees are a vital part of an ever shrinking habitat corridor in the 145th St Light Rail Station subarea. With the many large trees that were removed in the nearby large Arcadia Homes development, this site represents one of the few stands remaining to support Twin Ponds. The City of Shoreline has expressed concerns in the past regarding environmental needs created by Sound Transit development pressures. See the Park and Open Space Opportunities for Light Rail Station Subareas report, where there is mention of the need for protecting water & air quality, protecting wetlands, noise buffering, creating more open space, etc. Removing these trees clearly contradicts what the City espouses to value.

Over the past few years the City of Shoreline has published many documents and plans supporting the benefits of trees and how trees are valued in Shoreline. Recently the City commissioned the *Climate Impacts & Resiliency Study 2020*. This study recommends protecting vegetation and large trees on development lots, and experts suggest Shoreline "[p]lant more evergreen trees. These species will improve water quality and catchment for stormwater, as well as increase carbon sequestration."

Shoreline's tall trees and development can co-exist, but trees must actually be given consideration that reflects the true value of their role in maintaining water and air quality and mitigating global warming, especially urban "hot spots" caused by concrete surfaces replacing green plant life. Mature trees are doing a lot of "work" in keeping our air and water clean. Mere "replacement" saplings will take many decades to fulfill this environmental role. We can't sacrifice our air and water in the meantime! Last September's weeks of heavy smoke from wildfires should be a wake-up call.

We need to step up our game in Shoreline! Buildings can be designed to preserve our tall trees. The City's 2012 Comprehensive Plan set the guidelines for property development, and the City should require development designs to remain true to the City of Shoreline guidelines.

The Comprehensive Plan establishes the direction to *minimize the removal of mature trees when developing property*. Save Shoreline Trees asks City Planners, entrusted in their official capacities, to take directed action to support the essential welfare and well-being of Shoreline's citizens.

Aerial and street views of this site on Meridian Ave. N. between N. 147th and N. 148th Streets clearly show that these mature trees, some 70+ years old, have formed an impressive tree canopy. These tall conifers provide habitat for urban wildlife. Research has proven that trees have contiguous root systems and communicate with surrounding trees. They protect and benefit life around them, which includes us, the citizens of Shoreline. When these trees are removed, we will lose nature's

Attachment B

most resilient and efficient combatants against poor air quality. In this area, tall conifers may appear plentiful, but removal of these trees will deprive citizens of Shoreline of health and well-being.

Please make me a party of record to this matter.

Thank you.

Ramona Gault
Member of Save Shoreline Trees
Shoreline resident

Catherine Lee

From: Tina Carter <riesling777@gmail.com>
Sent: Thursday, December 17, 2020 10:31 AM
To: Catherine Lee
Subject: [EXTERNAL] 71 trees - PLN20-0139

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Catherine,

I'd like to be a party-of-record for the above project review, and speak for the 71 trees that are scheduled for removal in this project.

Please do everything you and anyone involved in the project can do to avoid destroying these trees, or at the very least, drastically minimize the number to be destroyed.

Replanting tiny trees is not a replacement for mature trees, which help guard our environment.

Please, please do not destroy these important trees.

Best regards,
Tina Carter

--

You become responsible forever for what you've tamed.

-- Antoine de Saint-Exupéry

When you are older, you realize that everything else is nothing compared to drawing and painting.

--- David Hockney

Attachment B

Catherine Lee

From: Janet Way <janetway@yahoo.com>
Sent: Friday, December 18, 2020 3:45 PM
To: Catherine Lee
Cc: Janet Way
Subject: [EXTERNAL] Notice of Application & SEPA Comment Period, including Optional SEPA DNS Process, Project Name Five Degrees City File #PLN20-0139
Attachments: Norman Bird list.doc; SEPA Comment Letter on 5 Degrees Project on Meridian Ave N and NE147th St.docx; Meridian Trees .jpeg; Pileated Woodpecker at 148th St. adjacent to Five Degrees project site.jpeg; Pileated Woodpecker sighted at 148th St at Five Degrees oroposed project site1.jpeg

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms Lee:

Please see attached comments and additional documents and photos on the above project.

Thank you.

Janet Way
Shoreline Preservation Society



940 NE 147th St.
Shoreline, WA 98155

December 18, 2020

City of Shoreline
Attn: Cate Lee, Associate City Planner
17500 Midvale Ave. N.
Shoreline WA 98133

Re: Notice of Application & SEPA Comment Period, including Optional SEPA DNS Process - 2105, 2117 and 2123 N. 148th St. / 2116, 2122, 2132, 2142 and 2150 N. 147th St. / 14704, 14710 and 14718 Meridian Ave N.
Applicant Name: Pulte Homes of Washington, Inc., Attn: Jim Sprott
Address: 14704 Meridian Ave N, Shoreline, WA
Project known as "5 Degrees"
City File #PLN20-0139

Dear Ms. Lee,

Please accept these comments on the **Notice of Application & SEPA Comment Period, including Optional SEPA DNS Process Applicant Name: Pulte Homes of Washington, Inc.**

Our organization, the Shoreline Preservation Society has longstanding interest in protecting the environment and Shoreline Community values. We are a Washington State Nonprofit, and we request Party of Record Status with Legal Standing. Our group includes persons who would be negatively affected by this project.

We believe there is likelihood and high risk of a significant and severe adverse environmental impact to the community if this development is built.

We appreciate your excellent efforts to provide documents to us this week. As we discussed, it is difficult for affected parties to offer substantive comments without the supporting documents

that together describe the project and its potential impacts on our community. Given the fact that several important documents were not available until a day or so before the comment period, we request that the city provide for an additional comment period for the purpose of reviewing these new documents. We believe that this request is reasonable, but especially so considering the logistical challenges posed by COVID 19 and the Christmas Season.

The following are some of our comments for your consideration:

The project would clear most of the site's vegetation, including most of its large, healthy trees. These trees are exceptional, especially since many of them form a contiguous cluster. This configuration protects against windfall, mitigates stormwater runoff, provides cooling and oxygenation, and provides valuable and rare wildlife habitat.

The City's code is insufficient to mitigate the negative impacts that would be caused by logging the site's outstanding population of trees. The City's code makes inadequate provisions to replace the functions and values of significant trees that are removed. Code permitted strategies such as off-site mitigation, replacement of large trees with small ones, fee-in-lieu schemes and census methods that understate tree mass and fail to protect sufficient numbers of the largest specimens have been documented to reduce the quantity and quality of urban forest resources. They provide scant protection of our environment, and must be supplemented by the appropriate use of the City's SEPA authority.

The City's code and construction requirements are insufficient to protect trees that may be designated to be retained. Trees are frequently damaged because of insufficient and unprotected "no-clear" zones and the resulting soil compaction and root damage that results. Additional protective conditions and monitoring requirements should be applied using the City's SEPA authority.

The City's code is inadequate to protect the project site's wildlife habitat, habitat that supports a surprising array of bird species. Moreover, the project site is in close proximity to the Twin Ponds and Thornton Creek watersheds. It is likely that the project site's outstanding tree canopy supports some of the well documented populations of wildlife that utilize those regional open spaces. The City's SEPA authority should be utilized in order to consider and mitigate the cumulative impact of the proposed project's and surrounding development impacts on these important ecological systems.

The City's adopted planning documents call for measures to protect the City's urban tree canopy, reduce urban heat island and climate change effects of urban development, and preserve wildlife habitat and open spaces. Adopted planning documents set forth the policy basis that should be used to mitigate the proposed project's impacts in these areas. Moreover, several City studies

provide the scientific basis and technical guidance for additional measures to accomplish the City's planning objectives. The City's SEPA authority is appropriate to further the City's well documented policy objectives by applying stronger mitigation conditions on the proposed project.

The project should be redesigned to preserve the entire existing contiguous high quality tree canopy. There is adequate land to accommodate most of the proposed housing units and still protect this environmentally sensitive area. This action would increase the property values of the development and improve the quality of life for future residents.

The project proposes to greatly increase demand on the surrounding road and walkway network. The existing network was designed many decades ago to support a vastly smaller demand. The proposed project would exacerbate existing deficiencies so much that they should be considered impacts of the development and should be mitigated. A detailed neighborhood assessment should be done in order to identify these issues. For example, the Evergreen School is only a block and a half away and lacks safe walkways for its students.

The additional traffic generated by the proposed project would encounter several bottlenecks and congestion points. This would result in an increase in cut-through traffic through neighborhoods with substandard and unsafe roads and walkways.

The project's traffic study assumed that project impacts had been previously considered in the City's previous Planned Action environmental review. This is incorrect. The project's impacts should be considered as new impacts, not included in any prior review. Moreover, these additional impacts should be considered together with impacts from other developments in the area that are also out of the area that was analyzed in previous environmental documents.

The project's traffic study underestimates expected traffic volumes. This is due to various factors, including a misapplication of sections of the Highway Capacity Manual including Special Report 209, the selection of the am peak instead of the commonly used pm peak, unreasonable trip allocations, and inaccurate assumptions of existing traffic volumes and pipeline project impacts.

The project's traffic study used the ITE trip generation for low rise apartment/condo. This is not appropriate given the large sizes of the units and garages. ITE says that if the trip generation category and sources doesn't represent the actual use, local counts should be conducted. Since ITE does not provide trip generation numbers for townhomes, additional data for townhomes should be investigated and used to calculate trip generation numbers. In the alternative, trip generation rates for single family homes should be used.

The project site is not close to shopping or well served by transit. It is beyond the commonly accepted walkable distance to major transit hubs. The trip generation numbers should be based on these facts, not the assumed factors in the submitted study.

The project's traffic study assumed a 2022 buildout. This is very unlikely. 2025 is a more reasonable full occupancy year for the project. The study's analysis of background traffic and other factors should be revised to reflect 2025 buildout. The Jacobs study incorrectly uses 2025 in one of its headings without the addition of the 1% growth factor plus project impacts.

The Jacobs study did not include trip assignment depictions for the WSDOT project. Standard practice for this kind of analysis requires inclusion of this data.

The Jacobs study has internally inconsistent 2019 LOS determinations in Table 2.

The project's traffic study assumes that the project's impact fees will be applied to turn lanes and bicycle lanes alone Meridian Avenue N. These improvements are not included in the LOS worksheets and are not shown in the LOS section. Moreover, there is no data to support whether there will be enough funding and impact fees to accomplish this work within the project's concurrency timeline.

The project's traffic study does not show buildout LOS data for the intersection of NE 145th and 1st Avenue NE.

Since the project's traffic study contained many errors, its conclusions regarding traffic concurrency and impact fee calculations should be disregarded. The City should manage a peer reviewed updated traffic study and run an independent traffic concurrency analysis. This should be accomplished as part of the City's development review and SEPA analysis and should be considered at hearing. At the very least, this more accurate data will likely support a much higher traffic fee assessment.

The project proposal does not show how it will meet the requirements of SMC 20.40.046 Sec D and Sec A.

The project's proposed density exceeds the legislative intent of the rezone. For example, city documents at the time of rezone stated:

“Mixed-Use Residential-35-foot height limit (MUR-35)-The existing zoning category that most closely resembles MUR-35 is R-18, which means it would allow 18 dwelling units per acre (du)”

There are many additional examples of this. One of the implications of the proposed project’s inconsistency with legislative intent is that environmental impacts were understated since they were based on the assumptions that guided the rezone decision.

The proposed project submittals do not adequately consider and mitigate stormwater impacts. Offsite flows are not accurately depicted and water quality measures are inadequate. The downstream conveyance systems, both man-made and natural, cannot accommodate the additional runoff from this site. Moreover, there is a high likelihood that regional downstream water resources, including fish habitat, will be negatively impacted.

The Drainage Report implies that all stormwater runoff will be channeled to Meridian Creek which is a small tributary which feeds into Twin Ponds, which is actually a channel of Thornton Creek. Thornton Creek is well known to be salmonid habitat. There is no information provided about how that creek will be impacted by additional flows.

Additionally, there is no provision in the Drainage Plan to utilize any “Natural Drainage Strategies or Low Impact Development” which are specifically called for in Shoreline’s Sustainability Strategy and Stormwater Manual. The inadequacy of the drainage in the Thornton Creek Watershed in Shoreline is well known to local residents and also to City Staff. Localized flooding is still common with the average 5, 10, 25, and 100-year storms that occur with increasing frequency with Climate Change bearing down on us.

Hence the reasoning, to preserve as many trees as possible is of utmost importance.

There is some local knowledge that suggests that there were hydric soils and standing water in some localized areas prior to modifications by property owners, modifications that would have made these areas difficult to identify during the May 26, 2020 reconnaissance.

In addition, there is some local knowledge that suggests that some of the heating oil tanks that serve the existing residences may have leaked. This information should be verified at this stage of the review in order to consider and apply additional mitigations and remediation that may not be accomplished if standard redevelopment practices are applied.

For instance, at least 85 Bird species of birds have been sighted at Twin Ponds Park according to the Ebird project, a Citizen Science App which records actual sightings by citizens.

<https://ebird.org/hotspot/L1902011>

And finally, we must point out that after the 145th and 185th St Rezones, it was noticeably clear that the City's Open Space requirements under the Growth Management Act are sadly lacking. With this increase in density along with all the others projected, preserving these existing tall trees as a community resource could not be any more important. With Climate change rapidly advancing as we hear nearly every day in the news preserving existing trees is imperative!

We suggest that the SEPA Responsible Official carefully consider the adequacy of prior environmental documents in order to determine whether the proposed project's significant adverse environmental impacts were, in fact, fully considered. The proposed project's MUR35 zoned area was not part of the Rail Project Planned Action, and the environmental impacts were not analyzed at that time.

Our review of the project submittals indicates that traffic, stormwater, wildlife habitat and other issues are site specific, were not considered previously, and would result in significant adverse environmental impacts. Our review also indicates that the City's adopted code provisions would not fully mitigate these impacts. Given all this, the City should use its SEPA substantive authority to impose additional conditions to provide adequate and reasonable mitigations.

We therefor submit these comments in hopes that Shoreline's expert staff can encourage and generate creative thinking to encourage better design that will improve development for all residents and wildlife as well. Good design should include Open Space and preservation of existing trees to have an actual livable community, instead of warehousing people to meet some proverbial density standard.

These are our preliminary comments, and we will likely be adding more in the next few weeks, as necessary. We are also including some documents here that are relevant to our issues.

Thank you for your consideration of our comments.

Respectfully submitted.

Janet Way, Chair

Shoreline Preservation Society







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*Wildlife Toxicology and Environmental Assessment***An Annotated Bird Species List of Paramount Park and Surrounding Areas, City of Shoreline, for Use in Park and Private Property Evaluation for Wildlife Protection.**

Compiled by Donald Norman, Norman Wildlife Consulting, November 2007.

As part of the appeal of development on 145th (The Plateau at Jackson), a document of the environmental importance of the Paramount Park area for wildlife is needed. NWC has developed a method for producing a validated list of the occurrence of birds for such areas. This approach allows a focus upon goals for enhancement, restoration and mitigation that can be designed for the site. Once such goals are established, it is much easier for property owners to understand their role in providing and maintaining appropriate buffers with adjoining parks, and for developments to address their impacts with mitigations that produce the best results. Such goals are based upon the local inventory and park plans. In Shoreline, the City has recently begun to address an inventory need for some of its parks with a study by Seattle Urban Nature. The local Paramount Park group is beginning to establish such goals.

A Key to the Annotated List

The list below is provided to confirmation of occurrence and to provide the status and comments on particularly important species. Local residents provided information to NWC was a list of 42 species that have occurred in the Paramount Park area. That list was evaluated by NWC, and site visits to the Park with occurrences confirmed are indicated in **BOLD**. This totals 42

species. A total of 35 species have been observed at the nearby Hamlin Park or adjoining are given an (H) and 51 species at Chris Southwick's yard adjoining Grace Cole Park are given an [S]. At least 6 species are breeding in Paramount Park, which are noted with an “*” , with additional 23 species potentially breeding, including some that would respond to restoration in the park and also those in adjoining residential habitat (like swallows) indicated by (*? parentheses). More summer surveys would easily confirm most of these species. Additional surveys would also likely add an additional 16 species on the site, designated in ***Bold Italics***. There are other species listed that might be considered to occur, but specific habitat requirements and local populations probably prevent their occurrence, they are given in italics if more possible than plain text. Species that were reported but are very rare or could be errors were given an explanation and are listed in [parentheses].

The Annotated List for Paramount Park, Shoreline, WA

MALLARD (MALL) ?* *Anas platyrhynchos*

This species breeds in most wetlands in the Seattle area (BBA Smith et al., 1997). It is difficult to tell if the birds are from wild or domesticated stock.

BUFFLEHEAD (BUFF) *Bucephala albeola*

The fact that this species was observed on one of the ponds at Paramount Park indicates that the wetlands is visible and at least worth investigating by species that are likely using the Jackson Park ponds.

GREAT BLUE HERON (S) (GBHE) *Ardea herodias*

This species breeds in several areas in Seattle (BBA Smith et al., 1997) and is observed feeding in any area with water, including such small areas as Paramount Park. The closest nesting by this species is at the Kenmore Park and Ride, and recently, a small colony at Matthews Beach in Seattle near 90th. The open water at Jackson Park probably attracts more herons to this area than most places.

Bald Eagle (H) (S) (BAEA) *Haliaeetus leucocephalus*

This species is listed as breeding in several areas in King County (BBA Smith et al., 1997) and is still increasing in Washington. Likely observed flying over Paramount Park.

SHARP-SHINNED HAWK (H) (S*) (SSHA) *Accipiter striatus*

This species occurs as a migrant and winter resident. Its presence in the summer is possible, as there have been breeding records in mixed deciduous conifer forest on nearby Bainbridge Island (BBA Smith et al., 1997). Since this species' diet is strictly passerine birds, the presence of many birds in the woodland edge (and with probable bird feeders at nearby houses) makes Paramount Park particularly favored for occurrence. Has been seen at Grace Cole Park in the summer.

COOPER'S HAWK (H) (S) *? (COHA) *Accipiter cooperii*

Similar to the Sharp-shinned Hawk, but this species is more likely to be a breeding species, as it breeds in lowland sites in Puget Sound (BBA Smith et al., 1997). The isolation of the site also increases its appeal as a breeding site. Observed hunting in Paramount Park.

RED-TAILED HAWK (H) (S) (RTHA) *Buteo jamaicensis*

The isolated woods make an idea location for nesting of this resident of open space but it requires more open space for breeding, which occurs in Jackson Park and along I-5. Red-tails have been seen during migration and may perch in some of the tall trees. Observed flying over Paramount Park.

Merlin (MERL) *Falco columbarius*

This species is a wintering species in King County, as well as a migrant, and often associates with wetlands, where it hunts for small waterfowl and shorebirds. Merlins do breed in the mountains of King County (BBA Smith et al., 1997), but it is unlikely that this species uses such small isolated forest patches for breeding. Merlins are not as likely to be observed foraging in dense woods, as would the sharp-shinned or Cooper's Hawk. They are regularly observed each winter in Richmond Beach (Norman 2007.)

PEREGRINE FALCON (PEFA) *Falco peregrinus*

Similar to Merlin but much rarer, and likely observed as a rare occurrence in Paramount Park. The presence of nearby ducks at Jackson Park ponds could be responsible for its occurrence. It has only been observed 3 times at Richmond Beach in over 2000 days of observation, compared to over 50 times for the Merlin.

CALIFORNIA QUAIL (H) (*nearby) (CAQU) *Callipepla californica*

This resident species occurs in brushy open areas and uses the forest in the Paramount Park as cover from cats and dogs in surrounding open areas. This species has certainly declined in areas with denser housing in

Richmond Beach (Norman 2007). This species has dramatically declined in Discovery Park, mostly due to loose dogs disturbing their breeding/roosting areas. The open area in the proposed development is likely an important area for quail to cross 145th into Jackson Park.

ROCK PIGEON (Rock Dove) (ROPI) *Columba livia*

This species is common at feeders at the edge of Paramount Park, but it is not clear where it breeds. Typically this species breeds in building eaves or under bridges.

BAND-TAILED PIGEON (H) (S) * ? (BTPI) *Columba fasciata*

This species occurs in mixed forest sites in western Washington, especially associated with edges, and it is also fond of madrone and native dogwood in the fall when the fruit is present. This is a WA state Priority Species, and impacts to this species require management plans in many Critical Area Ordinances (CAOs). Breeds in the trees at NE 163 and 28 Place NE. *Cornus nutallii* was observed on the property proposed for development, which is a fall food source, as are madrone fruit.

Western Screech-Owl (SCOW) *Otus kennicottii*

Screech owls in western Washington are associated with wooded areas especially near streams or wetlands. The forest surrounding the 16 Acres Reserve would provide a particularly important place for the owls to hunt, and its trees are large enough to nest in. This species will utilize nesting boxes.

GREAT HORNED OWL *? (GHOW) *Bubo virginianus*

This species requires forest for nesting, but hunts in many urbanized areas, especially those with open areas. Large trees are acceptable for nesting as long as the site is not disturbed. Nesting begins late in winter. The dense forest in the retained area on the proposed development site would be good nesting habitat on the top of a snag in a dense area, as it is close to the open area at Jackson Park where there are likely lots of rats, and perhaps rabbits.

Northern Pygmy-Owl (NOPO) *Glaucidium californicum*

This is a species of coniferous forest, but also occurs on forest edges where it hunts. Though there are no breeding records for this species in urban Puget Sound Lowlands, it has been observed breeding at Fort Lewis.

Northern Saw-Whet Owl (NSWO) *Aegolius acadicus*

This species is common to uncommon in the mixed coniferous forests of the Puget Sound lowlands during winter and early spring (Hunn 1982). Though this species has not been observed in Paramount Park, the coniferous forest is appropriate for this species.

Barred Owl (H) (S) (BAOW) *Strix varia*

This species has invaded the Pacific Northwest in the past 40 years, as a result of habitat openings in the forested areas. It has become a regular breeder in the Puget Sound Lowlands. It has been seen at Grace Cole Park, with newly fledged young.

Vaux's Swift (VASW) *Chaetura vauxi*

The status of breeding swifts in the Urban King County area has not been confirmed. This is a Washington State species of concern; it requires large snags as nesting trees that often occur in forested wetlands (BBA Smith et al., 1997). It is likely to be seen overhead in the early fall, or on some summer days when it is stormy in the mountains, requiring foraging in the Lowlands.

RUFOUS HUMMINGBIRD (H) (S) *? (RUHU) *Selasphorus rufus*

This species is an abundant migrant and common summer breeder, using Indian Plum (*Oemleria cerasiformis*), honeysuckle (*Lonicera ciliosa*), thimbleberry (*Rubus parviflorus*) snowberry (*Symphoricarpos alba*) and twinberry (*L. involucrata*) flowers for nectar. This species has been declining in numbers on the Washington State BBS routes. The presence of these plant species during the spring and summer ensures that various nectar sources in Paramount Park ensures that this species is present, and if all of the plant species necessary are present, it may remain and breeding would be an indication that enough varied food resources are available in the Park.

Anna's Hummingbird (H) (S*) *? (ANHU) *Calypte anna*

This species arrived from Oregon in the 1950's and has become a common breeder in the coastal areas of Puget Sound.. Year-round population banded at NE 163 and 28 PI NE.

BELTED KINGFISHER (BEKI) *Megasceryle alcyon*

Kingfishers are typically more common in winter than in summer in the Pacific Northwest, as this species requires a sandy bank for nesting by digging a tunnel. It is unknown but doubtful there is habitat at Jackson Park, making the occurrence of this species a migrant or wintering bird.

Red-Breasted Sapsucker (H) (S) (RBSA) *Sphyrapicus ruber*

This resident species has bred in Lowland King County (BBA Smith et al., 1997) and is associated with riparian and wetland areas, though it is not a common species. It is a quiet species, so it is often not detected and often only seen along the shoreline in winter.

DOWNY WOODPECKER (H) (S*) *? (DOWO) *Picoides pubescens*

This resident breeding species (BBA Smith et al., 1997) is the most likely species encountered in a forested urban area. It does not occur as frequently on the BBA as a confirmed breeder as the flicker from the 16 - 9 square mile BBA blocks from Edmonds to South Seattle, but is much more common than the Hairy Woodpecker (DMN Unpublished compilation of BBA). Newly fledged feeding at NE 163 and 28 PI NE.

HAIRY WOODPECKER (S*) (HAWO) *Picoides villosus*

This resident breeding species (BBA Smith et al., 1997) is more associated with coniferous forest than the Downy Woodpecker, but it will also use wetlands, as they often have many snags which are important for sources of food and nesting sites. This species is also an indicator of good habitat. Newly fledged feeding at NE 163 and 28 PI NE.

NORTHERN FLICKER (H, S) *? (NOFL) *Colaptes auratus*

This resident breeding species is more common in migration and winter than in summer with the addition of migrants and wintering individuals. The presence of many snags in the Park make this species likely to breed, as the dense forest deters Starlings, which can evict Flickers from a nest. Newly fledged young seen feeding at NE 163 and 28 PI NE.

PILEATED WOODPECKER (H, S*) *? (PIWO) *Dryocopus pileatus*

The status of this resident species is quite rare because of the large snags it requires. Paramount Park benefits this species as it provides an isolated location with snags large enough for nesting. This is another WDFW PHS species, and any projects destroying large trees should address whether this species occurs in the project areas, as outlined in many CAOs. A dead recently fledged juvenile was retrieved by DMN in Woodway. Observed at Hamlin Park. (Reports of nest tree in proposed dog park area.) Newly fledged young were observed feeding at NE 163 and 28 PI NE.

Olive-Sided Flycatcher (S) (OSFL) *Contopus borealis*

This Neotropical migrant summer breeder in western Washington is associated with upper canopy openings in coniferous forests. Its call can be heard from a great distance but observations are few. There are no known

nesting records for the Puget Sound Lowlands of King County (BBA Smith et al., 1997) It has been observed at NE 163 and 28 PI NE.

Western Wood-Pewee (WWPE) *Contopus sordidulus*

This Neotropical migrant summer breeder in western Washington is associated with open coniferous and deciduous habitats. It is listed as core habitat in coastal King County (BBA Smith et al., 1997), but it has not been observed in the Park. Migrants have been observed in Richmond Beach as late as June (Norman 2007).

Pacific-Slope Flycatcher (S) (PSFL) *Empidonax difficilis*

This Neotropical migrant summer breeder in western Washington is associated with open coniferous forests with deciduous understory, and is an abundant breeder in many areas (BBA Smith et al., 1997). It has been seen in Shoreview Park and also in Richmond Beach during migration. Observed at NE 163 and 28 PI NE.

Willow Flycatcher (WIFL) *Empidonax traillii*

This Neotropical migrant is a common summer breeder in western Washington and is associated with the edges of many riparian areas and also occurs in many clear cuts. This species has bred in King County (BBA Smith et al., 1997), and though it might not breed at Paramount Park because of the lack of open brushy habitat, it is also an abundant species in migration and would occur in spring and fall. Observed at NE 163 and 28 PI NE.

Dusky/Hammond's Flycatcher (UNFL) *Empidonax* sp.

It is very difficult to distinguish these two species apart in migration, which is when they would be expected to be observed. The Dusky Flycatcher has been observed in May at McChord AFB (Norman 2007), but they do not remain to breed.

VIOLET-GREEN SWALLOW (S) ?* (VGSW) *Tachycineta thalassina*

This species commonly breeds in urban areas in buildings, so although it is unlikely to be breeding at the site, it could be seen feeding over the forest and along the edges near houses. Observed flying over Paramount Park. This species readily accepts boxes.

Tree Swallow (TRES) *Tachycineta bicolor*

This species was recorded as occurring in Paramount Park, but it is more likely to be the Violet-green Swallow. This species could occur at Jackson

Park if there were nesting boxes and also in migration, but prefers more open areas than the park.

BARN SWALLOW (BARS) *Hirundo rustica*

This species commonly nests in urban buildings especially where there is open area for insects, so although it is unlikely to be breeding at the site, it was observed feeding over the forest and along the edges near houses.

STELLER'S JAY (H) (S*)?* (STJA) *Cyanocitta stelleri*

This is a common resident of coniferous forest that has adapted well to suburban areas. It is regularly observed in the Park, but is quiet during the breeding season and seldom observed then.

AMERICAN CROW (H) (S*) *? (AMCR) *Corvus brachyrhynchos*

There remains some issue about the disappearance of the Northwest Crow or interbreeding of the American Crown with the Northwest Crow. The Northwest Crow is a smaller marine based bird, common in flocks along the coast, breeding colonially, and feeding along the tideline, being the "species" occurring along the Olympic Coast. Color banded crows observed are part of UW studies.

Common Raven (H) (S) (CORA) *Corvus corax*

Has been observed at Hamlin Park and nearby wetlands since 2003. There has been a pair occasionally using trees behind NE 163 and 28 PI NE as recently as October 2006. Likely a nest predator of crows.

BLACK-CAPPED CHICKADEE (H) (S*) * (BCCH) *Parus atricapillus*

This is a common resident that uses wetlands extensively, but not exclusively. It is also a species that uses wetlands in small flocks in the winter, and especially in colder periods may be protected from freezing weather there. It is a cavity nester and readily accepts boxes.

CHESTNUT-BACKED CHICKADEE (H)(S*) *? (CBCH) *Parus rufescens*

This resident species prefers more coniferous habitat for foraging, but often nests in open habitats. This species needs used cavities for nesting, as it cannot excavate its own and readily accepts boxes. This species is also very associated with western hemlock. It is a common breeder in King County (BBA Smith et al., 1997).

BUSHTIT (H)(S*) * (BUSH) *Psaltirparus minimus*

This common resident species of the Puget Sound Lowlands is typically associated with human dominated landscapes..

RED-BREASTED NUTHATCH (H) (S*) *? (RBNU) *Sitta canadensis*

This common resident species is encountered in almost all wooded habitats. This species needs snags for nesting, as it does not use boxes .

BROWN CREEPER (H) (S*) ?* (BRCR) *Certhia americana*

This is a common resident species of coniferous forest in western Washington (BBA Smith et al., 1997). Preservation of local trees, especially snags and dead branches on trees is essential for its protection. Protection of large conifers is essential for its breeding.

[House Wren] (HOWR) *Troglodytes aedon*

This species was reported as being seen at Paramount Park, but was likely a Bewick's Wren, as it occurs in the Puget Sound Lowland in only a few dry habitat areas like the oak-prairie and ponderosa pine at Fort Lewis or the dry San Juan Islands.

BEWICK'S WREN (H) (S*) * (BEWR) *Thryomanes bewickii*

This common resident species of western Washington is associated more with brushy areas than wetlands (BBA Smith et al., 1997) but will use wetlands for foraging, especially during colder weather. Newly fledged juveniles observed feeding at NE 163 and 28 PI NE.

WINTER WREN (H) (S) *? (WIWR) *Troglodytes troglodytes*

This is a common resident species of well vegetated coniferous forest floor in western Washington. In migration and winter it utilizes a variety of shrubby habitats, and is likely to be present in wetland vegetation, especially during freezing weather. Individuals are heard singing in Richmond Beach into April but do not breed there (Norman 2007). Winter wrens were confirmed in 7 of the 25 blocks in the Seattle area are, with 13 probable and possible (BBA Smith et al., 1997).

VARIED THRUSH (H) (S) (VATH) *Zoothera naevia*

This common resident species of coniferous forest breeds in King County (BBA Smith et al., 1997), but is rarely observed in the Puget Sound Lowlands in summer. In the fall and winter it occurs in deciduous habitats, including forested wetlands, and the wetlands play an important role for winter cover and forage during rare winter storms, when hundreds of varied thrushes can be observed foraging on litter under wetland deciduous trees. This species is also associated with the fall madrone berry crop.

Swainson's Thrush (S) (SWTH) *Catharus ustulatus*

This is an abundant summer breeding thrush in the Puget Sound Lowlands in forested habitat (BBA Smith et al., 1997), along with the American Robin. This species disappears in the winter. Banded at NE 163 and 28 PI NE.

Hermit Thrush (HETH)

Catharus guttatus

This species is a common migrant and rare but regular wintering thrush in the Puget Sound Lowlands, where it uses the litter area under wetland deciduous trees for foraging and cover, and uses coastal wetland areas during cold periods. Over the winters of 1998-2002, thrushes have been banded at Shoreview Park between November and March (DMN Unpublished banding results).

AMERICAN ROBIN (H) (S*) * (AMRO)

Turdus migratorius

An abundant adaptable open space and woodland breeding summer resident in Puget Sound, with differing subspecies appearing in migration and in winter (Hunn, 1982). This is one of the most abundant species in all forested habitats, and one of the most common species in Paramount Park.

RUBY-CROWNED KINGLET (H) (S) (RCKI)

Regulus calendula

This is an abundant migrant and wintering species in the Puget Sound Lowlands, occurring in a wide variety of habitats, including forested wetlands, and undoubtedly one of the most likely encountered species at the Paramount Park in the winter. It arrives in October and is gone by mid-April.

GOLDEN-CROWNED KINGLET (H) (S) *? (GCKI)

Regulus satrapa

This abundant coniferous forest resident is an abundant breeder in King County (BBA Smith et al., 1997), and is commonly heard in all coniferous forests. During the winter, especially in cold weather, it is known to forage in non-coniferous habitats, including wetlands, and will forage close to the ground. The close proximity of conifer forest to wetland provides an important benefit to this species. It is a breeder in large cedar-dominated conifer forests. New fledglings seen feeding and were banded at NE 163 and 28 PI NE.

CEDAR WAXWING (H) (S) *? (CEDW)

Bombycilla cedrorum

This is a common breeding species in the Puget Sound lowlands, rare in winter (Hunn, 1982; BBA Smith et al., 1997). Birds are common in wetland habitats, but avoid more closed forested habitats. This species feeds heavily on fruit.

Bohemian Waxwing (BOWA)

Bombycilla garrulus

This is a winter vagrant from north and has been seen only once in Richmond Beach (Norman 2007). It occurs in King County from November to March (Hunn 1982).

European Starling (H) (S) (*Residential) (EUST) *Sturnus vulgaris*

This species was introduced into eastern North American in the late 1800's, and the first starlings occurred in Washington in 1945, and by 1956 winter roosts in the thousands were seen in Seattle (Hunn, 1982). It breeds generally in human associated habitats, though it will occupy appropriately-sized nesting holes. It is actually not a species that uses wetlands much, but might visit habitats in Paramount Park in late summer and fall to forage for fruit.

Hutton's Vireo (H) (S) *? (HUVI)

Vireo huttoni

This is a resident species in western Washington, associated with mixed coniferous-deciduous forest and is an uncommon breeder in King County (BBA Smith et al., 1997). It is often not recorded during the June BBS surveys because it sings more in early spring and nests as early as March. It is quite retiring in habit when not singing and is therefore not observed, and is often mistaken for the abundant ruby-crowned kinglet. It is very rare visitor observed to Donald Norman Richmond Beach yard (Norman 2007).

Western Warbling-Vireo (WAVI)

Vireo g. swainsonii

This Neotropical migrant is an uncommon summer breeding vireo in western Washington, where it nests in deciduous woodlands (BBA Smith et al., 1997).

[Red-eyed Vireo] (REVI) *Vireo olivaceus*

This species was reported on the Paramount Park list and is possible but is a very uncommon species mainly associated with cottonwood areas, especially on the Snoqualmie River. This species is also easily mistaken for Warbling Vireo, which is a common spring migrant in the city.

[Cassin's Vireo] (CAVI) Previously Solitary Vireo *Vireo cassinii*

This is also a Neotropical migrant that breeds in deciduous forest, but it is more abundant in the oak-pine forests in eastern Washington and is less common than the warbling vireo in western Washington. It has not been recorded in Richmond Beach (Norman 2007) but was only recorded once on the Vashon Island surveys (Hudson and Norman 2007)

Orange-crowned Warbler (S) (OCWA)

Vermivora celata

This Neotropical Migrant is a common breeding warbler in brushy habitat, breeds in King County (BBA Smith et al., 1997), and is an abundant migrant. It has a well established decline in western BBS counts, making it an important species to protect. Wetland habitat is important for this species.

Yellow Warbler (S) (YWAR) *Dendroica petechia*

This Neotropical Migrant is a very common bird in willows and wetland vegetation in western Washington, but it is declining on the Breeding Bird Survey in the region (Altman 2000). It is not a common breeding species in King County (BBA Smith et al., 1997), but it is expected to breed at Paramount Park because of the open deciduous habitat, and is likely to be observed. Observed at NE 163 and 28 PI NE.

Yellow-rumped Warbler (H) (S) (YRWA) *Dendroica coronata*

This species is an abundant migrant in the Puget Sound Lowlands (BBA Smith et al., 1997), and uses wetlands as well as forested areas for foraging.

Black-throated Gray Warbler (BGWA) *Dendroica nigrescens*

This Neotropical Migrant is listed as a breeding species in King County (BBA Smith et al., 1997), where it uses both riparian as well as coniferous forest. It has never been recorded in DMN's Richmond Beach (Norman 2007).

Townsend's Warbler (H) (S) (TOWA) *Dendroica townsendii*

This species is a common migrant and uncommon wintering species in the Puget Sound Lowlands, and a rare breeder. Observed at NE 163 and 28 PI NE.

MacGillivray's Warbler (H) (S) (MGWA) *Oporornis tolmiei*

This summer breeding Neotropical Migrant breeds in eastern King County, but the Puget Sound Lowlands are not listed as core habitat (BBA Smith et al., 1997). It is typically seen in migration.

Common Yellowthroat (COYE) *Geothlypis trichas*

This common Neotropical Migrant is an unlikely breeder at the Paramount Park. Though it is surprisingly adaptable to a variety of habitats, forested wetlands are not among the preferred sites without some open areas. It may be present at Jackson Park along the many ponds (water hazards). This species has only been recorded once in Donald Norman's Richmond Beach yard (Norman 2007.).

Wilson's Warbler (H) (S) (WIWA)*Wilsonia pusilla*

This is one of the most commonly encountered warblers in Paramount Park in migration, as it is a vocal singer. It is also listed as a declining species in the BBS in WA. It is a confirmed breeder in King County (BBA Smith et al., 1997), using forested sites similar to Paramount Park and breeding would be a goal of restoration actions.

Bullock's Oriole (BUOR)*Icterus bullockii*

This species has become rare in King County where it occurs in deciduous habitats, especially cottonwoods wetlands foraging high in the trees. There are breeding records in the 1980's from Richmond Beach, but none for the 1990's and recent years (DMN, personal Obs).

Red-winged Blackbird (RWBL)*Agelaius phoeniceus*

One would not expect this species to be a breeder at Paramount Park, but red-wings often appear in early spring in Puget Sound, often calling in forested areas in migration.

Brown-Headed Cowbird (H) *? (BHCO)*Molothrus ater*

This species is abundant in the Puget Sound Lowlands in the summer especially in farmed and open areas where it forages. It is an important species because it parasitizes many nests of Neotropical Migrants, but the rates of parasitism are not known for many Washington State Species of Concern. It has been observed at Paramount Park and is likely using Jackson's Park's open areas for foraging. It has adapted to suburban yards to parasitize White-crowned Sparrows and towhees.

WESTERN TANAGER (S) (WETA)*Piranga ludoviciana*

This Neotropical Migrant species is associated with coniferous forest in the Puget Sound Lowlands, and is a common breeder in such habitats in King County (BBA Smith et al., 1997). Pair observed at NE 163 and 28 PI NE May 2006.

House Sparrow (*Residential nearby) (HOSP) *Passer domesticus*

This abundant semi-domesticated species nests near all human activities, and would be expected to be seen on roads and yards adjacent to the site, but not in the forest interior.

Pine Siskin (H) (S) *? (PISI)*Carduelis pinus*

This abundant resident species, occurring more at higher elevations, is a breeder in King County but its status in the Puget Sound Lowlands is not

well known (BBA Smith et al., 1997). In migration and winter, it occurs in flocks in all forested areas, especially in riparian deciduous forests, and is common, especially in migration. Birds have been confirmed breeding in Richmond Beach. Banded at NE 163 and 28 PI NE.

AMERICAN GOLDFINCH (H) (S) (AMGO) *Carduelis tristis*

This resident of the Puget Sound Lowlands becomes abundant in May when additional migrants arrive. It breeds in open fields often later in the year and is a common breeder in King County (BBA Smith et al., 1997). In migration and the winter, it occurs in many forested areas, seeking seeds and catkins of deciduous species, often in the accompaniment with Pine Siskins. Observed flying over Paramount Park. Banded at NE 163 and 28 PI NE.

[Cassin's Finch] (CAFI) *Carpodacus cassinii*

This is the resident finch of east-side coniferous forest, and is rare outside of the Cascades, so this species was removed from the annotated list as a regular species in Paramount Park.

PURPLE FINCH (S) (PUFI) *Carpodacus purpureus*

This is the resident finch of coniferous forest, and is rare outside of the forests where House Finches dominate the open suburban yards. Its status in the Paramount Park is unclear. No birds have been seen in Richmond Beach for over 10 years (Norman 2007). Seen at NE 163 and 28 PI NE in 2005.

HOUSE FINCH (H) (S*) (HOFI) *Carpodacus mexicanus*

This species has expanded its range into the Pacific Northwest, and now occurs in all areas associated with human activity. It breeds in close proximity to houses. Observed at Paramount Park. Newly fledged young seen feeding and banded at NE 163 and 28 PI NE.

Red Crossbill (H) (RECR) *Loxia curvirostra*

This common resident of the coniferous forest wanders widely in the Puget Sound Lowlands and is generally recorded flying overhead. It is likely to be seen in Douglas Firs on the site. It has been documented as a breeder in nearby Shoreview Park.

EVENING GROSBEAK (H) (EVGR) *Hesperiphona vespertina*

Though this species breeds in King County (BBA, Smith et al 1997), it is mostly observed flying overhead, or seen feeding on seeds and catkins of deciduous trees, some of which occur in Paramount Park.

SONG SPARROW (H) (S*) * (SOSP) *Melospiza melodia*

This is a common resident of brushy habitat and is a common breeder in King County (BBA, Smith et al 1997). In Paramount Park it uses wetter areas for breeding and additional birds may arrive as early as August from other areas (as confirmed by banding records in Richmond Beach in August 2002) and spread out into other habitats during the wintering season. Observed at Paramount Park. Newly fledged birds seen feeding and have been banded at NE 163 and 28 PI NE.

Lincoln's Sparrow (LISP) *Melospiza lincolnii*

This species may breed in the mountains of King County (Hunn 1982), and is a common migrant and rare winter resident in the Puget Sound Lowlands. It prefers open grassy wet areas, so it is unlikely that it would occur in the forested areas or wetlands of Paramount Park. It does occur in more forested areas during migration, as evidenced by several banding records in Richmond Beach (Norman 2007).

Fox Sparrow (H) (S) (FOSP) *Passerella iliaca*

This species may breed in the mountains of King County (Hunn 1982). It is a common winter resident, most abundant in salal in the winter, but it also occurs in brushy areas and wetlands, and is especially common in cold events. It is also associated with madrone forests, especially where there is salal in the understory.

WHITE-CROWNED SPARROW (H) (S) *? (WCSP) *Zonotrichia leucophrys*

There are several White-crown subspecies occurring in western Washington; one is present primarily in the summer as an abundant breeder in variety of field and shrubby habitats, the other subspecies (*gambelii*) is a common migrant and uncommon winter resident. Just like the Golden-crowned Sparrow, may occur on more of the upland sites, except in cold periods, when it may use wetland areas for water and cover.

GOLDEN-CROWNED SPARROW (H) (S) (GCSP) *Zonotrichia atricapilla*

This is an abundant migrant and common winter resident in western Washington. It is more of an upland brushy habitat species than a forested wetland species. This species may occur on more of the upland sites, except in cold periods, when it may use wetland areas for water and cover.

DARK-EYED (Oregon) JUNCO (H) (S*) *? (DEJU) *Junco hyemalis*

This is a resident common species of coniferous forest edge and an abundant winter resident in western Washington, using a variety of edge habitats. In many areas in the Puget Sound Lowlands it disappears in the summer, but the presence of a bird in the summer indicates that good nesting habitat exist in the upland mixed forest. It breeds in the Highlands and Grace Cole Park, which has a much larger open coniferous forest, so it is not clear if it remains to breed at Paramount Park.

SPOTTED TOWHEE (H) (S*) * (SPTO) *Pipilo maculatus*

This is a common resident species of brushy habitat, also especially associated with wetlands (BBA Smith et al., 1997). It may also tend to flock in wetland areas in the winter, as banding studies have shown larger numbers of towhees in a small wetland at McChord AFB in the winter than occur in the area in summer. Towhees were heard singing on the April 2000 visit, and heard on the August 2000 visit (DMN), as well as on many other trips. Observed at Paramount Park. Newly fledged young seen feeding and banded at NE 163 and 28 PI NE.

Black-Headed Grosbeak (H) (S) (BHGR) *Pheucticus melanocephalus*

This Neotropical Migrant breeding species is confirmed as a breeder in King County (BBA Smith et al., 1997), though it is not nearly as common as in eastern Washington. It occurs in forested wetland and deciduous areas, but may not breed at Paramount Park. It uses the site during migration and appears to be more common in the fall, when birds start passing through the area in early August (Norman 2007). Observed flying over Paramount Park and feeding at NE 163 and 28 PI NE.

General References on Bird Distribution and Abundance in King County.

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- Hunn, E. 1982. Birds of King County. Seattle Audubon Society.
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- Southwick, C. L. 2006. Unpublished field notes for 16376 28th Place NE, Shoreline.
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Catherine Lee

From: Jeff Eisenbrey <jmeisenbrey@gmail.com>
Sent: Friday, December 18, 2020 2:43 PM
To: Catherine Lee
Subject: [EXTERNAL] Regarding the Pulte Development on Meridian Avenue

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee,

I would like to challenge the determination of nonsignificance given the Pulte Homes development on Meridian Avenue on several counts.

The city has yet to describe any consideration of cumulative impacts associated with the upzone. Each permit appears to proceed without alteration from the developers' use of the city's maximum allowable impacts. In this way, the "City of Trees" is becoming indistinguishable from any poorly planned developer's free-for-all. We residents have been promised something quite different, and there are valid reasons to preserve open ground and tree cover beyond those of aesthetics and livability—for which City of Shoreline "planners" have yet to demonstrate any regard.

Surface water: 85% impermeable surface is extreme. The ongoing changes to our climate have included increasingly severe storm flows. This development should NOT be considered in isolation from all of the development applications anticipated for the upper Thornton Creek basin. The City's documented approach of "We're monitoring, and will adjust when we have to," is foolish. I suggest you try planning instead.

Subsoil flow: The Pulte development can reasonably be expected to obstruct surface and subsurface flows from grades above this site. These flows are expected to increase over time. Obstructed subsoil flow contributes to surface runoff. Minimal standards of retention and treatment are already inadequate and ongoing development pressure will exacerbate these issues. An answer is to preserve open space and its capacity to retain and regulate surface and subsurface flows. The composition of the area's glacial till includes densely compacted clay which prevents infiltration. The water must have somewhere to go, and vaults have a poor record in reducing impacts in sustained precipitation events. Vaults also require regular maintenance whose schedules remain unenforced.

Tree cover: 75 trees have been identified as worthy of consideration for retention, yet the developer intends to keep only eleven within a cluster. The rest of the site would be cleared, eliminating these benefits: mitigation of heat events, regulation of humidity, provision of habitat, reduction of the impacts of precipitation events, addition of aesthetic value (City of Trees?), reduction of airborne particulate pollution, reduction of noise pollution, and mitigation of light pollution. "Replacement" of mature trees with saplings is an insult to intelligence. Instead, a revision of the development proposal should reduce the total percentage of impermeable surfaces in a way that preserves significantly more mature tree coverage.

Insolation: The only justification for the city to allow the radical removal of tree cover is to require photovoltaic panels on East, South, and West orientation roof surfaces.

Water quality: Development negatively affects water quality far off site. Tree cover, biofiltration swales, retention ponds, and continuous areas of undisturbed and/or remediated soils are means of mitigation—not restoration of function. These measures should be a part of every development and should be used in a coherent long-range strategy for an enlightened approach to achieving density.

With a little study, it is clear that everything involving development, trees, water, and climate is inter-related. The sacrifice of maximum density is required to prevent the sacrifice of all else. We have an opportunity to see a coherent

Attachment B

strategy which takes account of the larger community's needs rather than surrendering all to developers' profit motive. Please reduce the percentage of impermeable surface within this an all development proposals with a mind to preserving the City of Trees for its current and future residents -of all species.

Sincerely,
Jeffrey M. Eisenbrey
Catherine A. Kennedy
14811 9th Place NE
Shoreline, WA 98155

Catherine Lee

From: Lance Young <lance_young@yahoo.com>
Sent: Friday, December 18, 2020 4:54 PM
To: Catherine Lee
Subject: [EXTERNAL] Project #PLN20-0139 comments
Attachments: ITTPS147-MeridianProject.pdf

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Hi Cate Lee

Attached are our official comments please enter them as comments of record on this project, and send me a confirmation email that we got them in in time. Thanks for your efforts on managing this project.

Lance Young for
Interurban Trail Tree Preservation Society and Tree PAC

Attachment B

Lance Young (ITTPS, & Tree PAC)
 Interurban Trail Tree Preservation Society, & Tree PAC
 14810 Linden Ave N.
 Shoreline, WA 98133

December 18, 2020

City of Shoreline
 Attn: Cate Lee, Associate City Planner
 17500 Midvale Ave. N.
 Shoreline WA 98133

To: Cate Lee
 Re: Notice of Application and SEPA Comment Period for the project at:
 Address: 14704 Meridian Ave N, Shoreline, WA,
 Project number: PLN20-0139

Please make both Tree PAC, and myself (for ITTPS) a party of record with legal standing for the project listed above.

I will keep our comments brief here as we are rapidly approaching the official 5pm deadline but hope to continue to participate as the potential project moves forward. There are just two critical issues we would like to address initially one is regarding the preservation of the remarkable grove of mature evergreen trees at the core of the development site, the second is the increased traffic which the project would cause.

The Project area includes a grove of many dozens of mature evergreen trees. These trees are a key element of the neighborhood with benefits which reach far beyond the surrounding residents. These trees provide habitat for wildlife and a flyway of migrating birds which are dependent on these green belts for rest and food on migration patterns. As the rural forests get cut down for further expansion the remaining urban green belts become more and more important for the viability of native wildlife.

Then there is the importance of preservation for our human population. Every day there are more studies of the importance of green space for mental and physical health. Recent medical studies support the increased resistance to viral and bacterial infections in humans who have an opportunity to walk in forests and green spaces every few weeks. Simply breathing the air in these places increases the human immune response. This benefits all who live near the grove. Then the bigger picture is that trees are the best and cheapest solution to carbon sequestration that we have at this point. Global warming is everyone responsibility, and can not be solved if



Attachment B

everyone does not participate in the solution. Recently scientists have discovered that trees accelerate growth as they get older and bigger sequestering more carbon than dozens of smaller trees could in one years time. The Great Green Wall project, a consortium of 20 countries across the African Continent have come together to plant millions of trees to help with global warming and prevent the expansion of the Sahara. We need to help in our own way by preserving the trees we are blessed with here in our region where trees can be managed with relatively little effort. The impacts of the loss of trees needs to be more thoroughly addressed.

The impact of the loss of these trees is visually dramatic by looking at a comparison to the nearby 145th and 1st Ave project where the trees were striped to the ground before the project was even begun rather than trying to design around the assets.

To the second point regarding traffic congestion and driving safety in the area. There are several projects scheduled for this area of Shoreline, one of which is under construction just two blocks away. These projects will be adding significant traffic to SR 523 or 145th street. We do not believe that the impacts of this have been appropriately evaluated. Past evaluation of traffic impact have presumed that a large percentage of the residents in these new projects will be using public transportation. Now with Covig-19 we have frequently no one on busses in the off hours and only a hand full during peak commute, while many more opt to drive personal cars for health reasons. It is likely that this will be a long term change for many if not a permanent one after we start to get this virus back under control. Some of this will be offset by work at home jobs, but these people will then use their cars for errands rather than the bus to commute. These societal changes need to be better addressed in the impacts of this project. Thank you for your consideration of our environmental concerns



Sincerely

Lance Young
(206) 363-0859

Catherine Lee

From: Nancy Morris <taweyahnan@gmail.com>
Sent: Friday, December 18, 2020 1:55 PM
To: Catherine Lee
Cc: City Council
Subject: [EXTERNAL] Please preserve the 71 tall trees located at the Pulte Homes development site PLN20-0139, in the Parkwood neighborhood of Shoreline

Importance: High

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Cate Lee:

As the **Pulte Homes site, PLN20-0139** is still in the preplanning stage, can your planning department and the developers look to new standards of design now implemented more and more around the world that preserves trees and green space as much as possible? This because of the impending climate change impacts we as a society will all face. We can't continue to develop land in the slash and clear manner going forward. I implore you to consider already important information submitted by a number of Shoreline citizens, and see what can be done to save our tall significant conifer trees before they are lost forever at the Pulte Homes site, PLN20-0139. If people want to save and preserve trees, then new project design should be considered. This quoted article is just a sampling of a growing field of architecture and property development: **"12 Architects Who Build Houses Around Trees Instead Of Cutting Them"** <https://www.demilked.com/green-architecture-houses-built-around-trees/>. "The unfortunate reality of urbanization is that trees get in the way. However, creative architects find ways to build around the issue. The result is a tree that melds into the house – or the other way around. It's a nice blend of architecture and nature. One thing I always found off about some of the bigger cities was the lack of trees – I feel like a bit of green improves many a desolate city location."

There are now more architecture programs at universities that design for the landscape under development to preserves trees. Think how innovative this project could be if such a design was incorporated here in the city of Shoreline.

Some additional details on how important trees are to cities and how they provide assets can be found on this Colorado Tree Benefits website. <http://www.coloradotrees.org/benefits.htm>"

"Trees are major capital assets in cities across the United States. Just as streets, sidewalks, public buildings and recreational facilities are a part of a community's infrastructure, so are publicly owned trees. Trees -- and, collectively, the urban forest -- are important assets that require care and maintenance the same as other public property. Trees are on the job 24 hours every day working for all of us to improve our environment and quality of life."

Regards,
Nancy Morris
Shoreline resident

Catherine Lee

From: PCD
Sent: Monday, December 21, 2020 10:33 AM
To: Catherine Lee
Cc: Nora Gierloff
Subject: FW: [EXTERNAL] Pulte 5 Degrees Project - SEPA Comments

From: Ruth Alice Williams <ruthalice@comcast.net>
Sent: Friday, December 18, 2020 4:06 PM
To: PCD <PCD@shorelinewa.gov>
Subject: [EXTERNAL] Pulte 5 Degrees Project - SEPA Comments

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Lee:

I have reviewed the SEPA checklists for the project, and these are my comments.

- This removal of 68 significant trees out of a total of 85, the vast majority of which are native species, is tantamount to the destruction of a greenbelt and associated habitat. No doubt there are songbirds as the checklist notes, but a mature backyard greenbelt this size certainly includes owls and other raptors. A proper wildlife survey should be performed.
- This privately owned 2.5-acre, mostly greenspace, is about to be paved into 85% impervious coverage. With this standard more broadly applied, does the City of Shoreline really have the infrastructure resources to accommodate this new level of development in its station areas?
- With Shoreline's new and more relaxed rules for home-based businesses, how accurate is the predicted traffic count of "a net increase of approximately 423 daily" trips likely to be? This use combined with this high density sounds like a potential nightmare for other users of these residential streets (NE 147th & NE 148th).

Thank you for your attention to these matters.

Sincerely,

Ruth Williams
 (Thornton Creek Alliance board member,
 writing as an individual)
 1219 NE 107th St.
 Seattle, WA 98125
 206-365-8965

Catherine Lee

From: stsoming <stsoming@frontier.com>
Sent: Thursday, July 22, 2021 12:51 PM
To: ecyrewqianoi@ecy.wa.gov
Cc: Catherine Lee
Subject: [EXTERNAL] Public comments submission to Pulte Homes project, 5 Degrees
Attachments: DOE 7-22-21 Ltr re Pulte 5 Degrees.docx; DOE attachments.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To Whom It May Concern:

Attached is Save Shoreline Trees' public comments submission for consideration in the Department's review of the Pulte Homes of Washington, Inc. proposed construction project known as "5 Degrees" located at NE corner of N 147th St. and Meridian Ave. N., Shoreline WA.

Save Shoreline Trees request that its July 22, 2021 letter, together with its attachments be made part of the record. Please confirm receipt by reply email to the undersigned.

Thank you,

Susanne Tsoming, resident and Save Shoreline Trees Advisory Board Member



July 22, 2021

VIA – EMAIL to ecyrewqiano@ecy.wa.gov

Washington State Dept. of Ecology
Attn: Water Quality Program
Construction Stormwater
P.O. Box 47696
Olympia, WA. 98504-7696

Re: Applicant Name: Pulte Homes of Washington, Inc., Attn: Jim Sprott
Proposed Project commonly known as “5 Degrees”
Location: NE corner of N 147th St. and Meridian Ave N., Shoreline WA
Shoreline City File No. PLN20-0139

To Whom It May Concern:

Save Shoreline Trees (SST) submits the following concerns about the above-named construction project which involves 11 single-family lots and its proximity to Twin Ponds. In chronological order, written public comments were addressed to Cate Lee, Shoreline’s Associate Planner in charge of this project. By reference, all the following letters are incorporated by reference. Copies of them are attached for your reference and convenience.

Attachment A: On December 16, 2020, Kathleen Russell, a Shoreline resident and SST supporter stated in her letter that the planned removal of 71 significant trees will deprive Shoreline residents of resilient combatants against poor air quality from climate change and wildfire smoke. She pointed out that Shoreline’s 2020 publication, “Climate Impacts and Resiliency Study” recommends and recognizes the importance of our evergreen trees because “these species will improve water quality and catchment for stormwater, as well increase carbon sequestration.”

Attachment B: On December 16, 2020, SST Advisory Board called attention to the adverse effects of removal of the 71 significant trees on the project site because of its location in the Twin Ponds subbasin of the North Branch of the Thornton Creek Watershed, and its close proximity to Twin Ponds Park. Development and construction will disrupt and possibly pollute the habitat of birds and other riparian wildlife, such as river otters, which frequent Twin Ponds and its tributaries. River otters are apex specie, sensitive to water pollution. “River otters are highly vulnerable to pollution because of their position at the top of aquatic food chains. Residues of petroleum products, mercury and other heavy metals, organochlorine compounds, polychlorinated biphenyls, and other toxic compounds have been found in river otter tissues.”¹

¹ Per article entitled “North American River Otter: A Technical Conservation Assessment prepared by USDA Forest Services”, Rocky Mountain Region, Species Conservation Project. 9-2-06 Steve Boyle of B10-Logic Environmental, page 30.

Attachment B

Washington State Dept. of Ecology
 July 22, 2021
 Page 2 of 2

Attachment C: On December 18, 2020, Shoreline Preservation Society sent a letter to Cate Lee, where it objected to the removal of 71 tall conifer trees at the development site for additional environmental reasons. Pertinent to the Dept. of Ecology's investigation of "whether discharges from this project would cause a measurable change in receiving water quality . . .", on page 5, paragraphs 2, 3 and 4 of its letter reads:

"The proposed project submittals do not adequately consider and mitigate stormwater impacts. Offsite flows are not accurately depicted and water quality measures are inadequate. The downstream conveyance systems, both man-made and natural, cannot accommodate the additional runoff from this site. Moreover, there is a high likelihood that regional downstream water resources, including fish habitat, will be negatively impacted."

"The Drainage Report implies that all stormwater runoff will be channeled to Meridian Creek which is a small tributary which feeds into Twin Ponds, which is actually a channel of Thornton Creek. Thornton Creek is well known to be salmonid habitat. There is no information provided about how that creek will be impacted by additional flows."

"Additionally, there is no provision in the Drainage Plan to utilize any "Natural Drainage Strategies or Low Impact Development" which are specifically called for in Shoreline's "Sustainability Strategy and Stormwater Manual."

According to "Green Shoreline 20-Year Forest Management Plan", "Fragmentation" occurs when contiguous forested areas are divided by development. If Shoreline is to maintain a healthy urban tree canopy, it must respect and plan for greenbelts and corridors. Applicant's proposed removal of the 71 significant trees to build 72 townhouses, a large-scale project will have lasting negative impacts on the natural area and the surrounding community. The removal of these trees will deprive Shoreline citizens of health protection and lead to urban wildlife habitat destruction and degradation.

Sincerely,

Save Shoreline Trees, a 501(c)(3) organization

Melody Fosmore, co-chair
 Kathleen Russell, co-chair

Save Shoreline Trees Advisory Board

Susanne Tsoming, Shoreline resident
 Kathy Kaye, Shoreline resident
 Barbara Johnstone, Shoreline resident
 Claudia Turner, Shoreline resident
 Kathleen Russell, Shoreline resident

Encls.

cc: Cate Lee, City of Shoreline Associate Planner via email: cleee@shorelinewa.gov w/encls.

Attachment A

December 16, 2020

To: Cate Lee, City of Shoreline, Associate Planner <cllee@shorelinewa.gov>

Re: SEPA Comment PLN20-0139

Applicant: Pulte Homes of Washington, Inc.

PLN20-0139; Project: 5 Degrees

Location: parcels along Meridian Ave N between N. 148th and 147th;
and parcels along N. 147th and N. 148th.

Development: 72 townhouses

Dear Ms. Lee,

I am writing this letter to support the 71 tall trees¹ located at the Pulte Homes development site PLN20-0139, in the Parkwood neighborhood of Shoreline. If the design for the 72 townhouses is approved, these significant trees, predominantly Douglas Fir, will be removed. Per applicant's response to question B-4, page 5, on the SEPA Environmental Checklist: "with the exception of a grove of mature evergreen trees, the site will be cleared." In addition, another 10 public street trees will be removed for required right-of-way improvements.

Healthy, Vigorous Trees

As included in the Tree Evaluation by Gilles Consulting, dated May 5, 2020, submitted by the applicant, most of the significant trees at this project site, "have the current health, vigor, structural stability, and wind-firmness to be worthy of consideration for retention".

The design as it has been submitted should not be approved as these 71 tall trees offer environmental protection and health support to Shoreline residents, as do the 10 public street trees.

Environmental Protection for Shoreline Residents

Residents of Shoreline have experienced poor air quality in the last year, due to the effects of climate change and wildfire smoke. There were many "air alert days" in 2020 when residents were cautioned to limit outdoor activities. Certain health conditions are aggravated by unhealthy air which also affect children and seniors. According to treepeople.org²: "Trees combat climate change. Excess carbon dioxide (CO2) is building up in our atmosphere, contributing to climate change. Trees absorb CO2, removing and storing the carbon while releasing oxygen back into the air." As a tree ages it can store more carbon, and "70% of carbon storage happens in the last half of a tree's natural life."³ The trees located on the Pulte Homes/5 Degrees project site are 50-70 years, mature carbon-storing trees. In addition, these trees "absorb odors and pollutant gases (nitrogen oxides, ammonia, sulfur dioxide and ozone) and filter particulates out of the

air by trapping them on their leaves and bark,” (treepeople.org). Shoreline’s trees filter stormwater down their trunks and into the ground decreasing the flow of stormwater containing pollutant contaminants to our waterways. These are some of the environment and health benefits the trees situated at the Pulte Homes/5 Degrees project site provide to the residents of Shoreline.

City of Shoreline Study Recommends Large Trees

In 2020, the City of Shoreline published its *Climate Impacts and Resiliency Study*⁴ to “identify climate change impacts and areas of vulnerability”.⁵ This Study recommends “More resilient urban design standards... to ensure development increases city-wide resilience to climate change.” An example provided is to “modify design standards to encourage more vegetation and large trees.” This study also recommends the City, “Plant more evergreen trees. These species will improve water quality and catchment for stormwater, as well as increase carbon sequestration.”⁶ The mature tall trees at the Pulte/5 Degrees site are already doing this work.

Significant Trees at Pulte Homes/5 Degrees Site Should Be Protected

The trees at the Pulte Homes/5 Degrees project site are endangered and if these 71 trees are “cleared”, as stated by the applicant, the loss of benefits these trees provide to the Shoreline community will be substantial.

The best outcome for the environment and for the residents of Shoreline is that these significant trees will be preserved and Pulte Homes will be directed to revise their designs for this development.

I request to be added as a party-of-record to this project review.

Sincerely,

Kathleen Russell
Resident of Shoreline
Save Shoreline Trees Member

¹ Tree Retention Calculation Spreadsheet, page 2 (City Planner notes are calculated in red). PDF attached. Public street trees are not included in this report.

² [treepeople.org website](https://treepeople.org)

³ [As trees age, their climate benefit grows](#) by Torah Kachur, CBC, Aug. 18, 2017

⁴ [Climate Impacts and Resiliency Study](#), 2020, Appendix B. Recommended resilience strategies B-4, B-7

⁵ [City of Shoreline Sustainability Report](#) 2020, page 15, Resilient Communities



December 16, 2020

VIA EMAIL to Clee@shorelinewa.gov

City of Shoreline

Attn: Cate Lee, Associate City Planner

17500 Midvale Ave. N.

Shoreline WA 98133

Re: Notice of Application & SEPA Comment Period, including Optional SEPA DNS
Process - 2105, 2117 and 2123 N. 148th St. / 2116, 2122, 2132, 2142 and 2150 N.
147th St. / 14704, 14710 and 14718 Meridian Ave N.
Applicant Name: Pulte Homes of Washington, Inc., Attn: Jim Sprott
Address: 14704 Meridian Ave N, Shoreline, WA
Project known as "5 Degrees"
City File #PLN20-0139

Dear Ms. Lee,

On behalf of the Save Shoreline Trees Advisory Board members, we submit the following comments for the above-referenced matter.

Applicant will probably exercise its option to remove as many trees as possible from the site in order to accommodate the Applicant's proposed building plans as shown on its site plan attached to the Revised Notice of Application dated Dec. 4, 2020. As the assigned City Planner, you calculate that 88 Significant 'private' trees are on-site. Pursuant to the current SMC 20.50.350 at least 20% tree retention is required, which means 71 are to be removed, and 17 will be retained). In addition, 10 'public' right-of-way trees are to be removed.

We believe Applicant's proposed removal of essentially all the mature, existing trees on-site will adversely affect the environment. If permitted, it will be a sizeable loss to the City's urban tree canopy and will have the following impacts:

City of Shoreline
 Attn: Cate Lee, Associate City Planner
 December 16, 2020
 Page 2 of 4

1. Save Shoreline Trees believes removal of these stands of mature tall conifers will adversely impact SEPA B., Environmental Elements under 4. Plants, and 5. Animals in the following manner:

There are approximately 107 trees on the Project site. Two or three blocks north of the Project Site is Twin Ponds Park, a part of the Thornton Creek Watershed. The Project site is located in the Twin Ponds Subbasin (463 acres) of the North Branch of the Thornton Creek Watershed ("TCW"). The TCW is home to many birds and wildlife species. The Project site's close proximity to Twin Ponds Park likely indicates that the stands of trees on the site are homes for many species of birds. A report submitted in Nov. 2007 by Don Norman of Norman Wildlife Consulting entitled "An Annotated Bird Species List of Paramount Park and Surrounding Areas, City of Shoreline, for Use in Park and Private Property Evaluation for Wildlife Protection" describes and lists approximately 59 bird species that either nest or can be seen in the neighboring area of Paramount Park.

Furthermore, Forterra, the City's partner in Green Shoreline 20-Year Plan Forest Management Plan on Shoreline's "Climate and the City of Shoreline" page, indicates that the City's agreement to participate in a program that emphasizes protecting and providing wildlife corridors. The existing, mature trees on Applicant's site form a cluster or clusters. These trees have and continue to provide habitat for various species of birds. In addition, the close proximity of Twin Ponds Park to Applicant's site, which is situated in the Twin Ponds subbasin of the Thornton Creek Watershed, increases the likelihood that these birds and other wildlife inhabit the area. In Forterra's following statement from Green Shoreline 20-Year Forest Management Plan, Chap. 3 entitled "The Challenge – A Threatened Urban Forest" (pg. 14), what is called habitat fragmentation and development have adverse environmental consequences:

"Fragmentation and Development

Habitat fragmentation is a forest threat that is inevitable in urban environments. Fragmentation occurs when contiguous forested areas are divided by development. This fragmentation decreases the valuable internal habitat of the forest and increases edge effects because these areas receive more human interference, are more disturbed, and receive more sunlight than contiguous forest . . .

Urban forests exist in human-use areas; if the benefits of healthy forest are desired, planning and development must consider how and where to keep dense forest as uninterrupted as possible. Carefully considered urban planning of

City of Shoreline
 Attn: Cate Lee, Associate City Planner
 December 16, 2020
 Page 3 of 4

greenbelts, parks, tree-related policies, and neighborhood-specific regulations and association agreements can reduce fragmentation and contribute to the health of the urban forest. These intact green corridors can serve as the “skeleton” of a city’s green infrastructure, supported by individual trees or small groves of trees.”

2. Save Shoreline Trees believes removal of these stands of mature tall conifers will contribute to a heat island effect as defined in the City’s 2020 Climate Impacts & Resiliency Study. In Strategy #17 – More Resilient Urban Design Standards, it states:

“[c] modifying design standards to ensure that future development increases city-wide resilience to climate change, especially for new developments and redevelopment. As an example, modify design standards to encourage more vegetation and large trees. In addition to stormwater benefits, vegetation can improve urban habitat and provide shading to mitigate urban heat island effects.”

As we understand, if Applicant is permitted to ostensibly remove most of the trees on the merged 11 land parcels (106,291 sf), per SMC there will either on-site tree replacements or fee-in-lieu of tree replacements, or a combination. We request that the Director of Planning and Community Development enforce the fee-in-lieu for tree replacements that cannot fit on-site and deposit the funds into the City’s tree fund to be applied for the restoration of our City’s urban forest by planting and maintaining native vegetation and native trees as stated in the Green Shoreline 20-Year Forest Management Plan.

As a further compromise, we suggest a redesign and layout of some of the proposed buildings closest to the major stand of mature trees. For example, Applicant can incorporate those stands of mature trees as an open space and landscaping element by reducing the number of the proposed unit lots nearest to the stands of mature trees. This idea will accommodate a higher retention of valuable trees, preservation of necessary tree canopy coverage which provide benefits for our air and water quality, our bird and wildlife as well as for its future human occupants.

In summary, the Save Shoreline Trees Advisory Board maintains that to meet the near future growth needs of our City, there must be a balance between development and the natural assets of the City through the thoughtful implementation of the City Code. Development is going to continue in Shoreline for decades, and the City planners have the duty of seeing that its urban designs respect our natural environmental assets. By providing developers with good land use advice, we can guide them to create building projects that complements and supports our City’s irreplaceable tall conifers, not remove them.

Attachment B

City of Shoreline
Attn: Cate Lee, Associate City Planner
December 16, 2020
Page 4 of 4

Kindly acknowledge receipt of this comment and include SaveShorelineTrees@gmail.com as a party of record. Thank you for your attention.

Sincerely,

Save Shoreline Trees Advisory Board

Kathleen Russell
Susanne Tsoming
Claudia Turner
Kathy Kaye
Barbara Johnstone

• SHORELINE PRESERVATION SOCIETY •

940 NE 147th St.
Shoreline, WA 98155

December 18, 2020

City of Shoreline

Attn: Cate Lee, Associate City Planner

17500 Midvale Ave. N.

Shoreline WA 98133

Re: Notice of Application & SEPA Comment Period, including Optional SEPA DNS Process - 2105, 2117 and 2123 N. 148th St. / 2116, 2122, 2132, 2142 and 2150 N. 147th St. / 14704, 14710 and 14718 Meridian Ave N.
Applicant Name: Pulte Homes of Washington, Inc., Attn: Jim Sprott
Address: 14704 Meridian Ave N, Shoreline, WA
Project known as "5 Degrees"
City File #PLN20-0139

Dear Ms. Lee,

Please accept these comments on the **Notice of Application & SEPA Comment Period, including Optional SEPA DNS Process Applicant Name: Pulte Homes of Washington, Inc.**

Our organization, the Shoreline Preservation Society has longstanding interest in protecting the environment and Shoreline Community values. We are a Washington State Nonprofit, and we request Party of Record Status with Legal Standing. Our group includes persons who would be negatively affected by this project.

We believe there is likelihood and high risk of a significant and severe adverse environmental impact to the community if this development is built.

We appreciate your excellent efforts to provide documents to us this week. As we discussed, it is difficult for affected parties to offer substantive comments without the supporting documents

that together describe the project and its potential impacts on our community. Given the fact that several important documents were not available until a day or so before the comment period, we request that the city provide for an additional comment period for the purpose of reviewing these new documents. We believe that this request is reasonable, but especially so considering the logistical challenges posed by COVID 19 and the Christmas Season.

The following are some of our comments for your consideration:

The project would clear most of the site's vegetation, including most of its large, healthy trees. These trees are exceptional, especially since many of them form a contiguous cluster. This configuration protects against windfall, mitigates stormwater runoff, provides cooling and oxygenation, and provides valuable and rare wildlife habitat.

The City's code is insufficient to mitigate the negative impacts that would be caused by logging the site's outstanding population of trees. The City's code makes inadequate provisions to replace the functions and values of significant trees that are removed. Code permitted strategies such as off-site mitigation, replacement of large trees with small ones, fee-in-lieu schemes and census methods that understate tree mass and fail to protect sufficient numbers of the largest specimens have been documented to reduce the quantity and quality of urban forest resources. They provide scant protection of our environment, and must be supplemented by the appropriate use of the City's SEPA authority.

The City's code and construction requirements are insufficient to protect trees that may be designated to be retained. Trees are frequently damaged because of insufficient and unprotected "no-clear" zones and the resulting soil compaction and root damage that results. Additional protective conditions and monitoring requirements should be applied using the City's SEPA authority.

The City's code is inadequate to protect the project site's wildlife habitat, habitat that supports a surprising array of bird species. Moreover, the project site is in close proximity to the Twin Ponds and Thornton Creek watersheds. It is likely that the project site's outstanding tree canopy supports some of the well documented populations of wildlife that utilize those regional open spaces. The City's SEPA authority should be utilized in order to consider and mitigate the cumulative impact of the proposed project's and surrounding development impacts on these important ecological systems.

The City's adopted planning documents call for measures to protect the City's urban tree canopy, reduce urban heat island and climate change effects of urban development, and preserve wildlife habitat and open spaces. Adopted planning documents set forth the policy basis that should be used to mitigate the proposed project's impacts in these areas. Moreover, several City studies

provide the scientific basis and technical guidance for additional measures to accomplish the City's planning objectives. The City's SEPA authority is appropriate to further the City's well documented policy objectives by applying stronger mitigation conditions on the proposed project.

The project should be redesigned to preserve the entire existing contiguous high quality tree canopy. There is adequate land to accommodate most of the proposed housing units and still protect this environmentally sensitive area. This action would increase the property values of the development and improve the quality of life for future residents.

The project proposes to greatly increase demand on the surrounding road and walkway network. The existing network was designed many decades ago to support a vastly smaller demand. The proposed project would exacerbate existing deficiencies so much that they should be considered impacts of the development and should be mitigated. A detailed neighborhood assessment should be done in order to identify these issues. For example, the Evergreen School is only a block and a half away and lacks safe walkways for its students.

The additional traffic generated by the proposed project would encounter several bottlenecks and congestion points. This would result in an increase in cut-through traffic through neighborhoods with substandard and unsafe roads and walkways.

The project's traffic study assumed that project impacts had been previously considered in the City's previous Planned Action environmental review. This is incorrect. The project's impacts should be considered as new impacts, not included in any prior review. Moreover, these additional impacts should be considered together with impacts from other developments in the area that are also out of the area that was analyzed in previous environmental documents.

The project's traffic study underestimates expected traffic volumes. This is due to various factors, including a misapplication of sections of the Highway Capacity Manual including Special Report 209, the selection of the am peak instead of the commonly used pm peak, unreasonable trip allocations, and inaccurate assumptions of existing traffic volumes and pipeline project impacts.

The project's traffic study used the ITE trip generation for low rise apartment/condo. This is not appropriate given the large sizes of the units and garages. ITE says that if the trip generation category and sources doesn't represent the actual use, local counts should be conducted. Since ITE does not provide trip generation numbers for townhomes, additional data for townhomes should be investigated and used to calculate trip generation numbers. In the alternative, trip generation rates for single family homes should be used.

The project site is not close to shopping or well served by transit. It is beyond the commonly accepted walkable distance to major transit hubs. The trip generation numbers should be based on these facts, not the assumed factors in the submitted study.

The project's traffic study assumed a 2022 buildout. This is very unlikely. 2025 is a more reasonable full occupancy year for the project. The study's analysis of background traffic and other factors should be revised to reflect 2025 buildout. The Jacobs study incorrectly uses 2025 in one of its headings without the addition of the 1% growth factor plus project impacts.

The Jacobs study did not include trip assignment depictions for the WSDOT project. Standard practice for this kind of analysis requires inclusion of this data.

The Jacobs study has internally inconsistent 2019 LOS determinations in Table 2.

The project's traffic study assumes that the project's impact fees will be applied to turn lanes and bicycle lanes alone Meridian Avenue N. These improvements are not included in the LOS worksheets and are not shown in the LOS section. Moreover, there is no data to support whether there will be enough funding and impact fees to accomplish this work within the project's concurrency timeline.

The project's traffic study does not show buildout LOS data for the intersection of NE 145th and 1st Avenue NE.

Since the project's traffic study contained many errors, its conclusions regarding traffic concurrency and impact fee calculations should be disregarded. The City should manage a peer reviewed updated traffic study and run an independent traffic concurrency analysis. This should be accomplished as part of the City's development review and SEPA analysis and should be considered at hearing. At the very least, this more accurate data will likely support a much higher traffic fee assessment.

The project proposal does not show how it will meet the requirements of SMC 20.40.046 Sec D and Sec A.

The project's proposed density exceeds the legislative intent of the rezone. For example, city documents at the time of rezone stated:

“Mixed-Use Residential-35-foot height limit (MUR-35)-The existing zoning category that most closely resembles MUR-35 is R-18, which means it would allow 18 dwelling units per acre (du)”

There are many additional examples of this. One of the implications of the proposed project’s inconsistency with legislative intent is that environmental impacts were understated since they were based on the assumptions that guided the rezone decision.

The proposed project submittals do not adequately consider and mitigate stormwater impacts. Offsite flows are not accurately depicted and water quality measures are inadequate. The downstream conveyance systems, both man-made and natural, cannot accommodate the additional runoff from this site. Moreover, there is a high likelihood that regional downstream water resources, including fish habitat, will be negatively impacted.

The Drainage Report implies that all stormwater runoff will be channeled to Meridian Creek which is a small tributary which feeds into Twin Ponds, which is actually a channel of Thornton Creek. Thornton Creek is well known to be salmonid habitat. There is no information provided about how that creek will be impacted by additional flows.

Additionally, there is no provision in the Drainage Plan to utilize any “Natural Drainage Strategies or Low Impact Development” which are specifically called for in Shoreline’s Sustainability Strategy and Stormwater Manual. The inadequacy of the drainage in the Thornton Creek Watershed in Shoreline is well known to local residents and also to City Staff. Localized flooding is still common with the average 5, 10, 25, and 100-year storms that occur with increasing frequency with Climate Change bearing down on us.

Hence the reasoning, to preserve as many trees as possible is of utmost importance.

There is some local knowledge that suggests that there were hydric soils and standing water in some localized areas prior to modifications by property owners, modifications that would have made these areas difficult to identify during the May 26, 2020 reconnaissance.

In addition, there is some local knowledge that suggests that some of the heating oil tanks that serve the existing residences may have leaked. This information should be verified at this stage of the review in order to consider and apply additional mitigations and remediation that may not be accomplished if standard redevelopment practices are applied.

For instance, at least 85 Bird species of birds have been sighted at Twin Ponds Park according to the Ebird project, a Citizen Science App which records actual sightings by citizens.

<https://ebird.org/hotspot/L1902011>

And finally, we must point out that after the 145th and 185th St Rezones, it was noticeably clear that the City's Open Space requirements under the Growth Management Act are sadly lacking. With this increase in density along with all the others projected, preserving these existing tall trees as a community resource could not be any more important. With Climate change rapidly advancing as we hear nearly every day in the news preserving existing trees is imperative!

We suggest that the SEPA Responsible Official carefully consider the adequacy of prior environmental documents in order to determine whether the proposed project's significant adverse environmental impacts were, in fact, fully considered. The proposed project's MUR35 zoned area was not part of the Rail Project Planned Action, and the environmental impacts were not analyzed at that time.

Our review of the project submittals indicates that traffic, stormwater, wildlife habitat and other issues are site specific, were not considered previously, and would result in significant adverse environmental impacts. Our review also indicates that the City's adopted code provisions would not fully mitigate these impacts. Given all this, the City should use its SEPA substantive authority to impose additional conditions to provide adequate and reasonable mitigations.

We therefor submit these comments in hopes that Shoreline's expert staff can encourage and generate creative thinking to encourage better design that will improve development for all residents and wildlife as well. Good design should include Open Space and preservation of existing trees to have an actual livable community, instead of warehousing people to meet some proverbial density standard.

These are our preliminary comments, and we will likely be adding more in the next few weeks, as necessary. We are also including some documents here that are relevant to our issues.

Thank you for your consideration of our comments.

Respectfully submitted.

Janet Way, Chair

Shoreline Preservation Society

Attachment B

Catherine Lee

From: SEPA Review Notices <SEPA@pscleanair.gov>
Sent: Friday, December 11, 2020 9:42 AM
To: Adam Matza; Catherine Lee
Subject: [EXTERNAL] RE: City of Shoreline - Revised Notice of Application (2) & SEPA Comment Period including Optional SEPA DNS Process

Follow Up Flag: Follow up
Flag Status: Completed

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The Puget Sound Clean Air Agency is submitting the following public comment to this project:

Any project where demolition of structure(s), earth moving and material handling, heavy equipment operations, and/or disposing of vegetative matter is to occur, is subject to Puget Sound Clean Air Agency regulations. The requirements may include, but are not limited to the following:

Agency Regulation I:
 Article 8 – Outdoor Burning
 Article 9 – Emission Control Standards, Section(s) 9.03, 9.11, and 9.15

Agency Regulation III:
 Article 4 – Asbestos Control Standards

Agency Regulations can be viewed in full on our website:
<http://www.pscleanair.gov/219/PSCAA-Regulations>

Thank you,

Puget Sound Clean Air Agency
Sepa@pscleanair.gov

From: Adam Matza <amatza@shorelinewa.gov>
Sent: Thursday, December 3, 2020 3:16 PM
Subject: City of Shoreline - Revised Notice of Application (2) & SEPA Comment Period including Optional SEPA DNS Process

SEPA Administrators,

Please see the Notice of Application PLN20-0139 for a proposed Preliminary Formal Subdivision application to divide eleven (11) parcels into seventy-two (72) townhouse unit lots. Construction of 72 townhouses, along with associated site and frontage improvements. This proposal is being re-noticed a second time because the required site sign postings were not posted on site by the deadline date. The proposal was re-noticed on November 23, 2020 because the project was inadvertently considered eligible as a Planned Action pursuant to Ordinance No 752. The City sent out this original Notice of Application on October 22, 2020.

Attachment B

Attached are the:

1. SEPA Checklist
2. NOA with Optional DNS and Site Plan
3. Request for Comments

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060)

Respectfully,

Planning & Community Development
17500 Midvale Ave N Shoreline, WA 98133
(206) 801-2500

Email: pcd@shorelinewa.gov Web: www.shorelinewa.gov

TREE RETENTION CALCULATION WORKSHEET

Contact Phone Number: 206-528-4670

REVISION
11/02/2021
PCD

- NOTES:

1. If a tree is non-significant, list it below, but do not include in retention and replacement calculations, label as non-significant in the Replace column.
2. See SMC 20.50.310(B) on page 2 for the exempt number of trees for the size of lot, which are also exempt from replacement requirements.
3. In certain critical areas such as steep slopes or stream buffers, trees may not be removed unless they are hazardous to persons or property. Check with City staff for regulations.

☐ CHECK BOX IF NO TREES TO BE REMOVED[illegible]

Attachment B

Tree Calculations	Totals
Significant Trees on Lot/Site (A)	86
Significant Trees to be Removed	67
Significant Trees to be Retained (Min 20%)	19
Exempt from Replacement (B) (Table 20.50.310(B)(I) Below)	16
Trees Requiring Replacement	51
Replacement Trees (C)	139

A. Significant Tree -

Any **Conifer** Tree that is eight (8) inches or greater in diameter at breast height (DBH) and any **Deciduous** Tree that is twelve (12) inches or greater in diameter at breast height (DBH).

Only significant trees are regulated except in environmentally critical areas where all trees are regulated.

REDUCTION TO 110 ONSITE REPLACEMENTS GRANTED ON 11/10/2021. SEE LETTER FROM PCD DIRECTOR. -CL

DBH - Diameter of tree at breast height or 4 1/2 feet above average grade.

B. SMC.20.50.310(B) - Exempt Trees – The removal of three (3) significant trees on lots up to 7,200 square feet and one (1) additional significant tree for every 7,200 square feet of lot area (excluding trees 30" or more in diameter (94.2" in circumference))

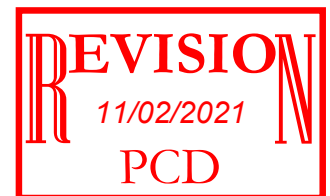
C. Tree Replacement per SMC 20.50.360(C)

Coniferous Tree Circumferences		Coniferous Tree Diameters	
0" - 24.8" = non-significant	or	0" – 7.0" = non-significant	
24.8" - 34.1" = 1 replacement tree	or	7.1" - 11" = 1 replacement tree	
34.1" - 43.4" = 2 replacement trees	or	11.1" – 14.0" = 2 replacement trees	
43.4"+ = 3 replacement trees	or	14.1"+ = 3 replacement trees	
Deciduous Tree Circumferences		Deciduous Tree Diameters	
0" - 37.2" = non-significant	or	0" – 12.0" = non-significant	
37.2" - 46.5" = 1 replacement tree	or	12.1" – 15.0" = 1 replacement tree	
46.5" - 55.8" = 2 replacement trees	or	15.1" – 18.0" = 2 replacement trees	
55.8"+ = 3 replacement trees	or	18.1"+ = 3 replacement trees	
Replacement Size: Conifers 6' Height and Deciduous 1 1/2" caliper			

Trees proposed for removal have been clearly marked on the site and tree protection measures are in place. (A city planner will visit the site to confirm prior to reviewing your application.)

_____ Initial here to acknowledge this requirement

Note: This worksheet is provided as an aid and is for informational use only. It is not a substitute for the Shoreline Municipal Code or the Shoreline Development Code.





Tree Replacement Qty

5-Degrees

Shoreline, WA 98133

Attachment B

Arborist: HI and CM

Date of Inventory: 01/29/2021

Table Revised 11/1/2021

TREES STATUS for site trees ONLY: Table only accounts for trees on site and does not include trees within the ROW proposed for removal.

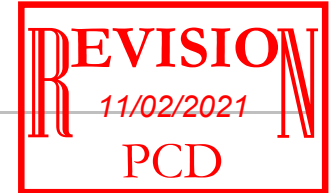
For full tree table see Arborist Report.

DSH (Diameter at Standard Height) is measured 4.5 feet above grade.

DSH for multi-stem trees are noted as a single stem equivalent, which is calculated by averaging all stem measurements if tree is often found in multi-stem habit.

Otherwise calculated using the method defined in the Guide for Plant Appraisal, 10th Edition.

*Replacement tree quantity per tree reflects the value for trees. 16 trees are marked as EXEMPT from replacement requirements.



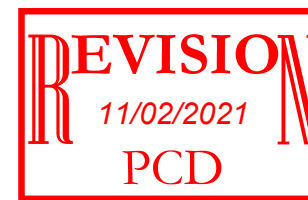
Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (in)	DSH Multistem	Proposed Action as of 8/10/2021	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees *
98	777130-0135	2122 N 147TH ST	<i>Prunus laurocerasus</i>	Cherry laurel	6.7	8.2, 5, 7	Remove	Non-significant	0
501	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	36.0		Remove	Landmark	3
502	777130-0110	2150 N 147TH ST	<i>Picea abies</i>	Norway spruce	11.8		Retain	Significant	0
503	777130-0110	2150 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	37.0		Retain	Landmark	0
504	777130-0110	2150 N 147TH ST	<i>Malus domestica</i>	Apple	9.2	11.5, 6.9	Remove	Non-significant	0
506	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	21.3		Remove	Significant	0 (exempt)
507	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	26.0		Remove	Significant	0 (exempt)
508	777130-0140	2116 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	40.2		Remove	Landmark	3
509	777130-0140	2116 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	21.5		Remove	Significant	0 (exempt)
510	777130-0140	2116 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.2		Remove	Significant	0 (exempt)
515	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	32.0		Remove	Landmark	3
516	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	24.0		Remove	Significant	0 (exempt)
517	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.0		Remove	Significant	0 (exempt)
518	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	27.0		Remove	Significant	0 (exempt)
519	777130-0060	14718 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	29.8		Remove	Significant	0 (exempt)
520	777130-0060	14718 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	34.0		Remove	Landmark	3
521	777130-0060	14718 MERIDIAN AVE N	<i>Taxus brevifolia</i>	Western yew	11.0		Remove	Significant	1
523	777130-0055	2105 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	24.5		Remove	Significant	0 (exempt)
524	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	30.0		Remove	Landmark	3
525	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	12.0		Remove	Significant	2
7009	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	38.0		Remove	Landmark	3
8620	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	40.8		Remove	Landmark	3
8637	777130-0135	2122 N 147TH ST	<i>Prunus serrulata</i>	Flowering cherry	12.5		Remove	Significant	1
8642	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	12.5		Remove	Significant	2
8643	777130-0135	2122 N 147TH ST	<i>Prunus laurocerasus</i>	Cherry laurel	7.2		Remove	Non-significant	0
8645	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	10.6		Remove	Significant	1
8659	777130-0140	2116 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	24.5		Remove	Significant	0 (exempt)



Tree Replacement Qty

5-Degrees

Shoreline, WA 98133



Attachment B

Arborist: HI and CM

Date of Inventory: 01/29/2021

Table Revised 11/1/2021

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (in)	DSH Multistem	Proposed Action as of 8/10/2021	Significant/ Non-significant/ Landmark by Size	Qty of Replacement Trees *
8668	777130-0140	2116 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	28.8		Remove	Significant	0 (exempt)
8681	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	15.6		Remove	Significant	0 (exempt)
8682	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	14.0		Remove	Significant	2
8697	777130-0125	2132 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	24.2		Remove	Significant	0 (exempt)
8698	777130-0125	2132 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	36.5		Remove	Landmark	3
8699	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	32.7		Remove	Landmark	3
8701	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	30.3		Remove	Landmark	3
8702	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	26.5		Remove	Significant	0 (exempt)
8703	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	27.5		Remove	Significant	0 (exempt)
8704	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	14.2		Remove	Significant	0 (exempt)
8705	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	29.0		Remove	Significant	3
8706	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	17.0		Remove	Significant	3
8707	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.5		Remove	Significant	3
8708	777130-0125	2132 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	25.1	19.2, 16.1	Remove	Significant	3
8766	777130-0115	2142 N 147TH ST	<i>Abies grandis</i>	Grand fir	26.0		Remove	Significant	3
8803	777130-0110	2150 N 147TH ST	<i>Chamaecyparis nootkatensis</i>	Alaskan cedar	8.5		Retain	Significant	0
8832	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	12.0		Retain	Significant	0
8907	777130-0070	2123 N 148TH ST	<i>Magnolia x soulangiana</i>	Saucer magnolia	9.6		Remove	Non-significant	0
8933	777130-0065	2117 N 148TH ST	<i>Prunus cerasifera</i>	Cherry plum	27.7		Remove	Significant	3
8961	777130-0055	2105 N 148TH ST	<i>Cornus nuttallii</i>	Pacific dogwood	13.4	10.6, 8.2	Remove	Significant	1
8977	777130-0055	2105 N 148TH ST	<i>Prunus serrulata</i>	Flowering cherry	15.1		Remove	Significant	2
8986	777130-0055	2105 N 148TH ST	<i>Prunus serrulata</i>	Flowering cherry	24.9	13.1, 18.5, 9.8,	Remove	Significant	3
8987	777130-0055	2105 N 148TH ST	<i>Acer macrophyllum</i>	Bigleaf maple	22.9	18.8, 13.1	Remove	Significant	3
9004	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	44.0		Remove	Landmark	3
9005	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	32.5		Remove	Landmark	3
9007	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	29.8		Remove	Significant	3
9008	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	24.8		Remove	Significant	3
9014	777130-0065	2117 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	18.4		Remove	Significant	3
9096	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	21.8		Remove	Significant	3
9097	777130-0115	2142 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	30.8		Remove	Landmark	3
9098	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	9.8		Retain	Significant	0
9099	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	31.8		Retain	Landmark	0
9100	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.3		Retain	Significant	0
9101	777130-0115	2142 N 147TH ST	<i>Thuja plicata</i>	Western redcedar	9.0		Retain	Significant	0
9102	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	15.0		Retain	Significant	0
9103	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	22.8		Retain	Significant	0

Tree Solutions, Inc.

www.treesolutions.net

2940 Westlake Ave. N #200 Seattle, WA 98109

206-528-4670

Page 2 of 3

8a-481

PLN20-0139

Tree ID	Parcel/Lot #	Address	Scientific Name	Common Name	DSH or Single-Stem Equivalent (in)	DSH Multistem	Proposed Action as of 8/10/2021	Significant/Non-significant/Landmark by Size	Qty of Replacement Trees *
9104	777130-0115	2142 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.3		Retain	Significant	0
9169	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	18.5		Retain	Significant	0
9170	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	25.5		Retain	Significant	0
9171	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	25.7		Retain	Significant	0
9172	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	9.5		Retain	Significant	0
9173	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	18.4		Retain	Significant	0
9174	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	20.2		Retain	Significant	0
9175	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	26.2		Retain	Significant	0
9176	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.5		Retain	Significant	0
9177	777130-0125	2132 N 147TH ST	<i>Tsuga heterophylla</i>	Western hemlock	26.8		Remove	Significant	3
9178	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	22.2		Remove	Significant	3
9179	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	25.6		Remove	Significant	3
9180	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	33.8		Remove	Landmark	3
9182	777130-0125	2132 N 147TH ST	<i>Robinia pseudoacacia</i>	Locust	11.0		Remove	Non-significant	0
9183	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	20.3		Remove	Significant	3
9184	777130-0125	2132 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	13.0		Remove	Significant	2
9284	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	19.6		Remove	Significant	3
9285	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	23.5		Remove	Significant	3
9286	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	15.5		Remove	Significant	3
9292	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	22.9		Remove	Significant	3
9293	777130-0070	2123 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	29.5		Remove	Significant	3
9326	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	32.2		Remove	Landmark	3
9327	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	27.1		Remove	Significant	3
9328	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	17.8		Remove	Significant	3
9329	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	11.8		Remove	Significant	2
9330	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	28.6		Remove	Significant	3
9552	777130-0145	14710 MERIDIAN AVE N	<i>Pseudotsuga menziesii</i>	Douglas-fir	7.2		Remove	Non-significant	0
9897	777130-0055	2105 N 148TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	16.6		Remove	Significant	3
18620	777130-0135	2122 N 147TH ST	<i>Pseudotsuga menziesii</i>	Douglas-fir	23.0		Remove	Significant	3
								Total:	139



**SHORELINE
CITY COUNCIL**

Will Hall
Mayor

Keith Scully

Deputy Mayor

Susan Chang

Doris McConnell

Keith A. McGlashan

Chris Roberts

Betsy Robertson

November 10, 2021

Jim Sprott
Pulte Homes of Washington, Inc.
jim.sprott@pulethgroup.com

RE: DEV20-1621 (2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N) - Tree Replacement Exception Request

Dear Mr. Sprott,

The City of Shoreline Planning & Community Development Department has received and reviewed your request to reduce the number of required replacement trees from 139 replacement trees to 110 replacement trees.

The site contains 86 significant sized trees, 67 of which are proposed for removal, 19 of which are proposed for retention, 16 of which are partially exempt from retention and replacement requirements, resulting in a retention percentage of 27 percent ($19 / 70 = 0.271$). The code required minimum retention is 20 percent, or 14 trees ($70 \times 0.20 = 14$).

A reduction to the number of replacement trees requires an exception request to the Planning Director addressing the criteria in accordance with SMC 20.50.360(C)(b)(i-iv):

- i. There are special circumstances related to the size, shape, topography, location or surroundings of the subject property; and
- ii. Strict compliance with the provisions of this Code may jeopardize reasonable use of property; and
- iii. Proposed vegetation removal, replacement, and any mitigation measures are consistent with the purpose and intent of the regulations; and
- iv. The granting of the exception or standard reduction will not be detrimental to the public welfare or injurious to other property in the vicinity.

Note: The cited code section was amended by [Ordinance No. 907](#), effective December 15, 2020, but appears in this letter as it did when this application



was vested on October 19, 2020.

The reduction of required replacement trees is requested primarily due to retention of additional significant sized trees beyond the minimum requirement; off-site tree canopy that extends onsite which limits the ability to replant new trees within the existing canopy; and providing the level of density desired in the MUR-35' zoning district. Planting the required replacement trees in the critical root zones of trees to be retained, both onsite and offsite, would disturb established root systems. Planting the required replacement trees on the remaining part of the site would lead to overcrowding and competition for water and sunlight.

The proposed landscape plan incorporates 110 out of the 139 required replacement trees. The area needed to plant an additional 29 trees onsite would require between 5,000 and 20,000 square feet. The 5,000 square feet is based on the canopy dimensions of a small tree (serviceberry) and the 20,000 square feet is based on the canopy dimensions of a medium tree (mature hedge maple). This would reduce the density of the proposed project. The average unit size in this proposal is 640 square feet at the ground level, which would mean a reduction in unit count of eight (8) to thirty-one (31), meaning the density would decrease from 70 units to 62 units at the high end to 39 units at the low end. The code required minimum density for this site is thirty (30) units. The initial proposal for this project was 72 units, which was reduced to 70 units through the revision process to provide more adequate tree protection for trees to be retained. The required spacing of trees from buildings, each other, and driveways does not allow for full compliance while also allowing for the proposed and remaining trees to grow in a healthy manner.

The Planning and Community Development Department finds that the applicant has sufficiently demonstrated that special circumstances exist due to the previously mentioned retained significant onsite trees and offsite trees with canopy extending onsite. The granting of a tree replacement reduction will not be detrimental to the public welfare because it will maximize tree canopy coverage over the long term by allowing replacement trees the space to maximize photosynthetic capacity and develop good structure.

The request for the exception to allow for a reduction to the number of replacement trees meets the criteria of SMC 20.50.360(C)(b)(i-iv) and shall be granted on the following conditions, which will be listed as conditions of permit approval for DEV20-1621, related to onsite trees:

- Tree protection shall be in place at time of pre-construction meeting as shown on approved plans. Tree protection shall remain in place until final inspection and shall not be removed except as outlined in the approved arborist report.
- Pre-construction meeting required. Project arborist shall attend pre-construction meeting with city building inspector and project general contractor.

Attachment B



- Project arborist shall be onsite for removal of hardscape adjacent to tree protection area on the southeast corner of the site.
- Applicant shall provide city planner with monitoring reports (electronic, PDF file) from project arborist on retained trees as follows:
 - Start of construction (post-demolition, pre-site grading work)
 - Beginning of dry season (May), annually if construction spans more than one year
 - End of dry season (September), annually if construction spans more than one year
 - End of site grading and utility installation
- Trees shall not be removed during bird nesting season, which stretches from the last week of February to the first week of August, unless the project ecologist is onsite to facilitate bird nest relocation. If a young bird is encountered and is unable to fly, the project ecologist shall contact the approved rehabilitation facility, PAWS in Lynnwood, WA.

The tree replacements shall be planted as shown on Sheet L1.0 Landscape Layout Plan, dated 08/19/2021. A tree replacement performance bond is required prior to permit approval, and a 3-year maintenance bond is required prior to final inspection.

Should you have any questions, please contact Cate Lee, Senior Planner, at 206-801-2557, or via e-mail at clee@shorelinewa.gov.

Sincerely,

Rachael Markle
Planning Director
Planning & Community Development Department
206-801-2531

Attachments: Arborist Report with Reduction Request, Sheet L1.0 Landscape Layout Plan

c.c.: Ben Wolk, Board & Vellum, ben@boardandvellum.com
Yi-Chun Lin, Board & Vellum, yi-chun@boardandvellum.com



Board & Vellum

ARCHITECTURE AND DESIGN

115 15th Ave E, Suite 100 Seattle, WA 98112
info@boardandvellum.com | 206.707.8895



JURISDICTION STAMP AREA

PULTE 5 DEGREES
SHORELINE

PROJECT ADDRESS:
14704 MERIDIAN AVE N
SHORELINE, WA 98153
OWNER:
PULTE HOMES
20000 15TH AVE SE
BELLEVUE, WA 98006

REVISION	DATE	DESCRIPTION
2	2021.08.19	PERMIT CORRECTIONS #2
1	2021.04.23	PERMIT CORRECTIONS #1

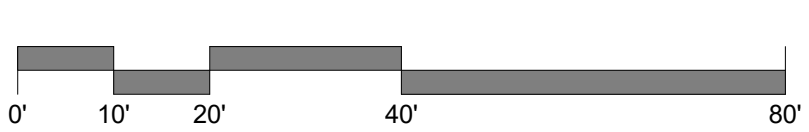
DATE	DESCRIPTION
2020.08.07	BUILDING PERMIT SET
2021.04.23	PERMIT CORRECTIONS #1
2021.07.27	PRICING SET
2021.08.19	PERMIT CORRECTIONS #2

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ORIGINAL SHEET SIZE 22"x34"
BOARD & VELLUM PROJECT #: 2019132.00
PROJECT #: PRE-20-0026
PLOT DATE: 2021.08.19

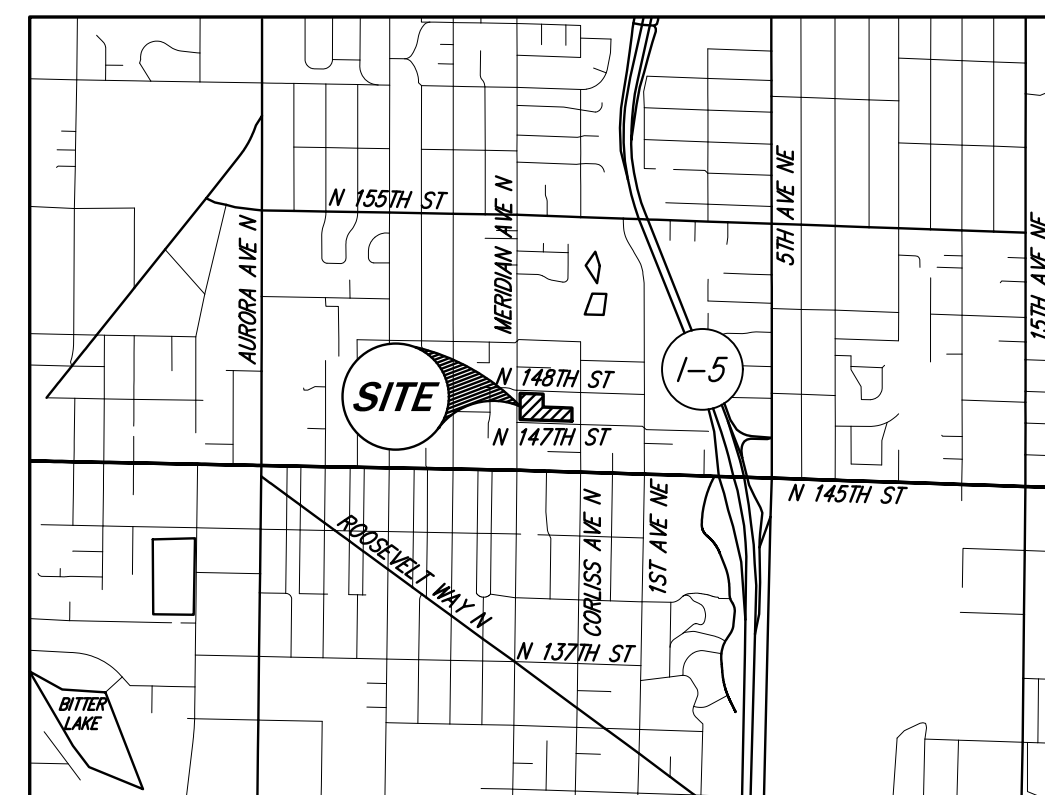
LANDSCAPE LAYOUT PLAN
SHEET NO.:

L1.0

REVISION
9/1/2021
PCD



1 LANDSCAPE LAYOUT PLAN
1" = 20'-0"

**VICINITY MAP**
$$1'' = 2.000'$$

SITE STATISTICS

ASSESSOR'S PARCEL NUMBER: 7771300-055, -060, -065, -070, -110, -115,
-125, -135, -140, -145, -150

SITE ADDRESS: 2105, 2117 & 2123 N 148TH ST
14704, 14710 & 14718 MERIDIAN AVE N
2116, 2122, 2132, 2142 & 2150 N 147TH ST
SHORELINE, WA 98133

EROSION CONTROL MEASURES

SEE SHEETS C2.01-C2.31 FOR ALL EROSION CONTROL MEASURES

PROPOSED LOT LINE GEOMETRY

SEE PRELIMINARY PLAT UNDER SEPARATE COVER FOR
PROPOSED LOT / TRACT LINE DIMENSIONS.

EARTHWORK

CUT: 7,300 CY
FILL: 3,800 CY

EXISTING BUILDINGS

ALL EXISTING BUILDINGS SHALL BE DEMOLISHED

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING



PULTE HOMES OF WASHINGTON, INC.
7535 FACTORY BLVD SE
00000

**SITE PLAN
5 DEGREES**

SEE STAMP DATE
GINA R. BROOKS, P.E.
MARY MOORE
GINA R. BROOKS, P.E.
GINA R. BROOKS, P.E.

C1.05

PROJECT NUMBER
19133

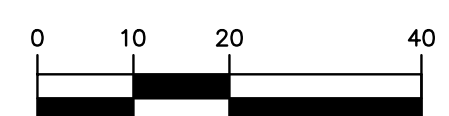
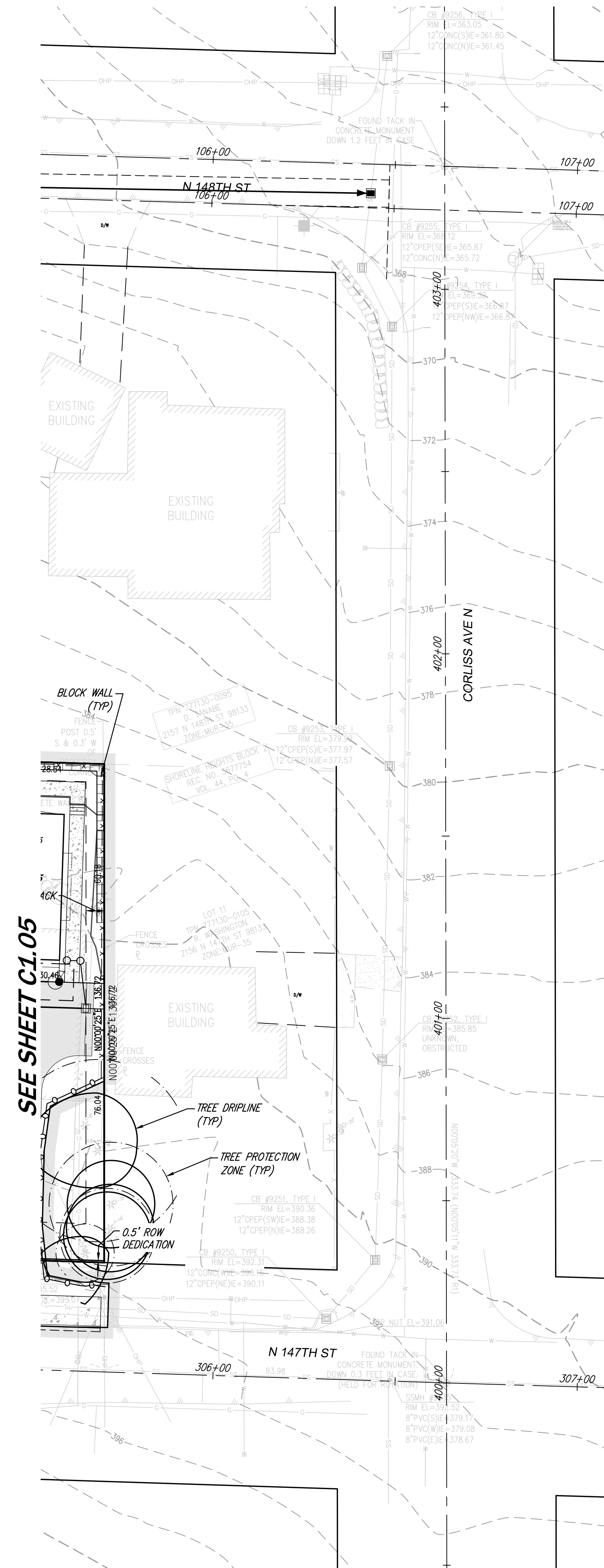
DEV20-1621









UNDERGROUND LOCATOR SERVICE
CALL BEFORE YOU DIG!
811

**WORK WITHIN ROW WILL BE PERMITTED
UNDER #ROW20-1678**

DEV20-1621

REVISION
9/1/2021
PCD



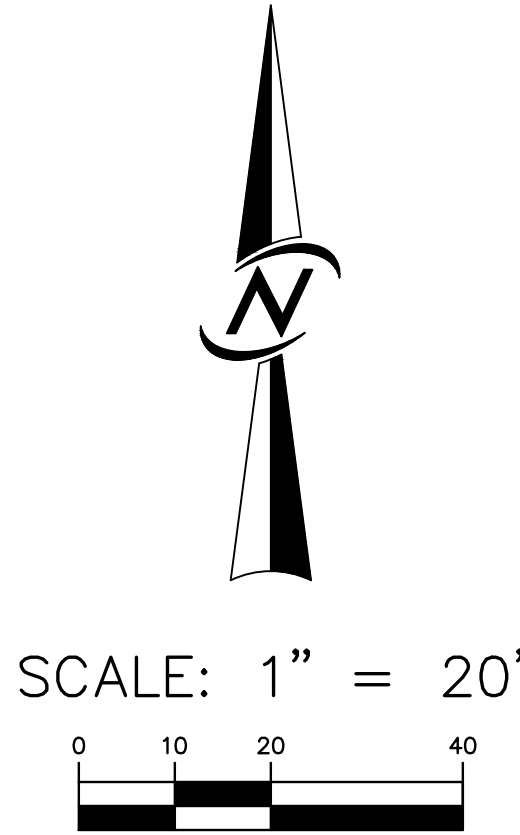
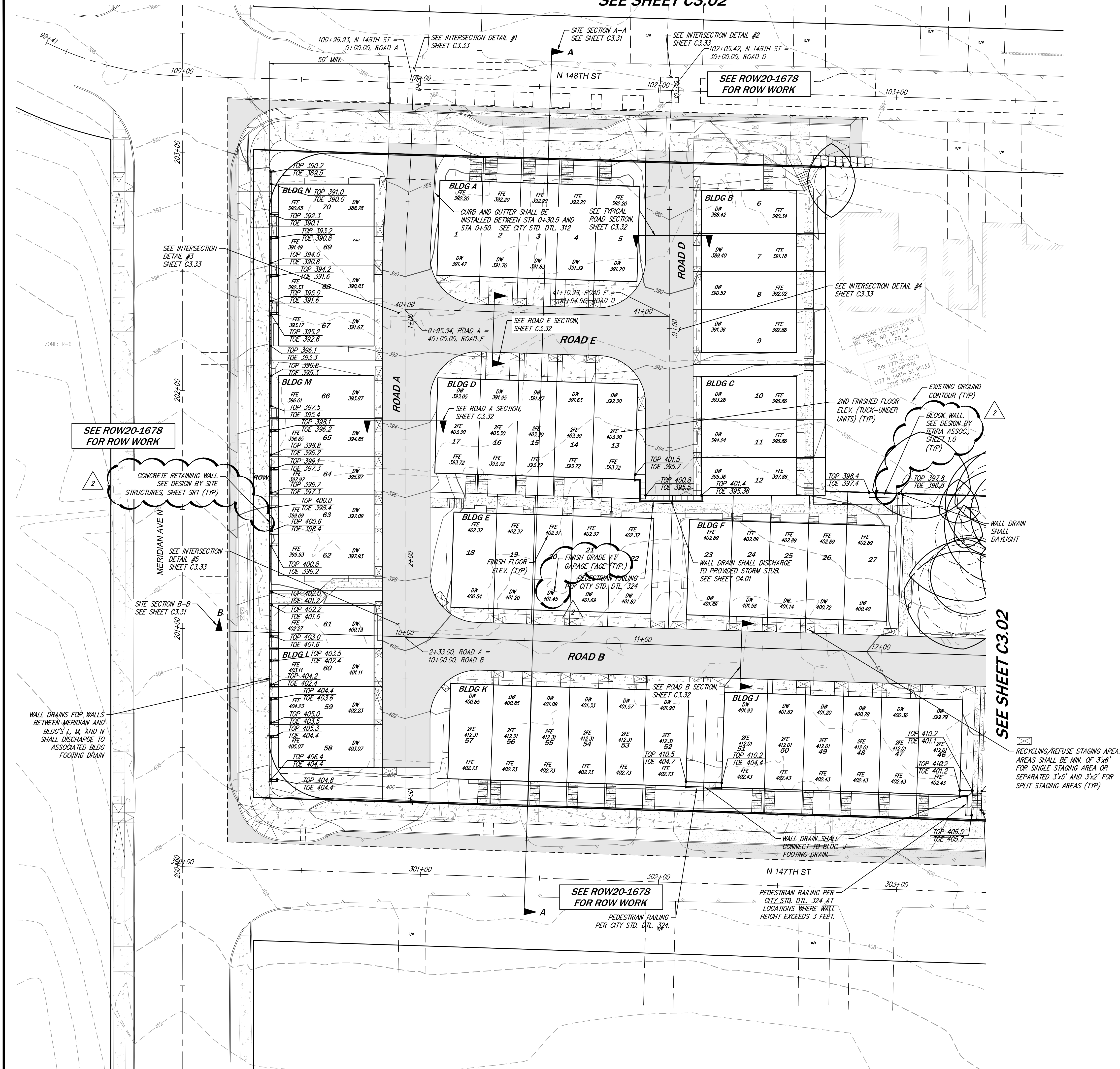
- # LEGEND
-
- | | | |
|---|---|-----------------------|
|  |  | TYPE 2 CB |
|  |  | TYPE 1 CB |
|  | | STORM DRAIN CLEANOUT |
|  | | YARD DRAIN |
|  | | SEWER MANHOLE |
|  | | TREE PROTECTION FENCE |

REVISION
9/1/2021
PCD

UNDERGROUND LOCATOR SERVICE
CALL BEFORE YOU DIG!
811

**WORK WITHIN ROW WILL BE PERMITTED
UNDER #ROW20-1678**

DEV20-1621

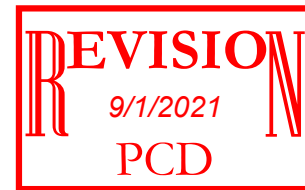


GRADING QUANTITIES

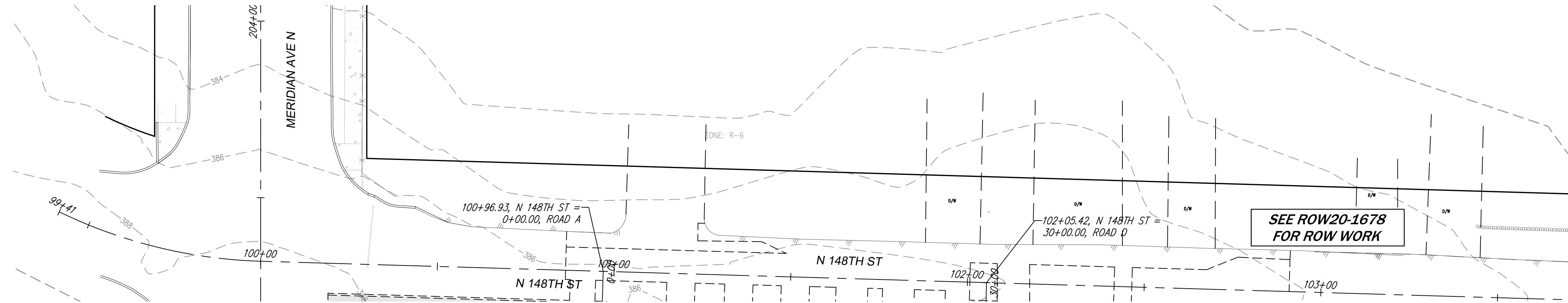
CUT: 6,090 CY
FILL: 3,060 CY
TOTAL EXPORT: 3,030 CY
NOTE: THE QUANTITIES SHOWN HEREON ARE FOR THE PERMIT PROCESS ONLY. THESE VALUES ARE APPROXIMATE. CONTRACTOR SHALL VERIFY.

UNDERGROUND LOCATOR SERVICE
CALL BEFORE YOU DIG!
811

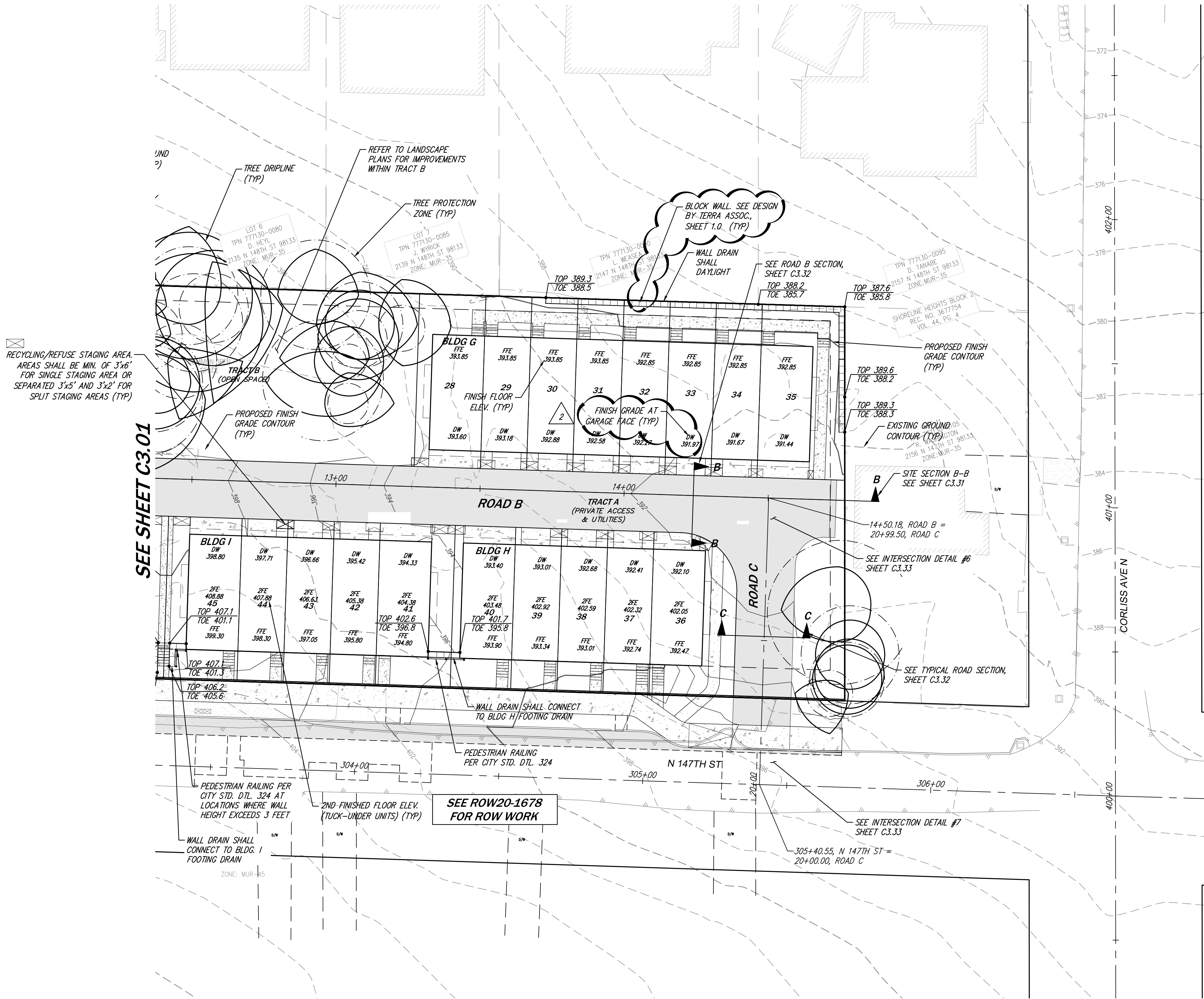
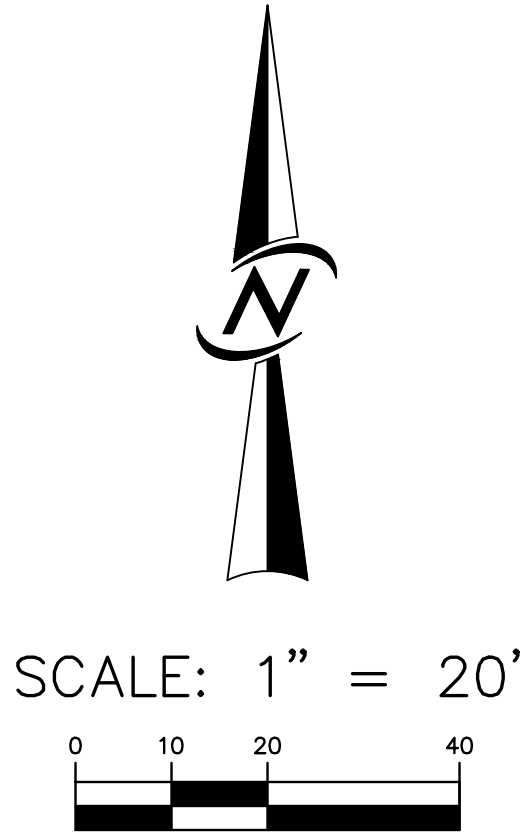
WORK WITHIN ROW WILL BE PERMITTED
UNDER #ROW20-1678
DEV20-1621



DATE	4/27/24	DESIGNED	GINA R. BROOKS, P.E.	DATE	9/27/23
REVISED PER CITY COMMENTS		DRAWN	MARY MOORE	REVISED PER CITY COMMENTS	
NO		APPROVED	GINA R. BROOKS, P.E.	NO	
PROJECT NUMBER	19133	PROJECT MANAGER	GINA R. BROOKS, P.E.	PROJECT NUMBER	19133
ROAD & GRADING PLAN 5 DEGREES PULTE HOMES OF WASHINGTON, INC. 3535 FACIOLIA BLVD SE, #600 BELLEVUE, WA 98006				CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING CORE DESIGN 12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877	



SEE SHEET C3.01



REVISION
9/1/2021
PCD

UNDERGROUND LOCATOR SERVICE
CALL BEFORE YOU DIG!
811

WORK WITHIN ROW WILL BE PERMITTED
UNDER #ROW20-1678

DEV20-1621

DATE	REVISIONS	BY	DATE
4/27/21	REVISED PER CITY COMMENTS		
8/27/21	REVISED PER CITY COMMENTS		

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

CORE
DESIGN

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

ROAD & GRADING PLAN
5 DEGREES

PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

DATE	SEE STAMP DATE	DESIGNED	DRAWN	APPROVED	PROJECT MANAGER
		GINA R. BROOKS, P.E.	MARY MOORE	GINA R. BROOKS, P.E.	GINA R. BROOKS, P.E.

SHEET
C3.02
PROJECT NUMBER
19133

PROPERTY OWNERS

MERIDIAN AVENUE N -

14704 MERIDIAN AVENUE N, SHORELINE, WA 98133 - CARTER IRENE
14710 MERIDIAN AVENUE N, SHORELINE, WA 98133 - CHU GRACE TSUI YUN CHOW
14718 MERIDIAN AVENUE N, SHORELINE, WA 98133 - INLAND EMPIRE

N 147 TH STREET -

2116 N 147TH STREET, SHORELINE, WA 98133 - SAKYA ZAYA V
2122 N 147TH STREET, SHORELINE, WA 98133 - BROWER MICHELLE J & MICHAEL B
2132 N 147TH STREET, SHORELINE, WA 98133 - NATIONAL TRANSFER SERVICES
2142 N 147TH STREET, SHORELINE, WA 98133 - STOREY MARK & KATHLEEN M BLAN
2150 N 147TH STREET, SHORELINE, WA 98133 - THOMAS JEB STEWART & KARI REN

N 148TH STREET -

2105 N 148TH STREET, SHORELINE, WA 98133 - FORMAN JOHN P & JENNIFER M
2117 N 148TH STREET, SHORELINE, WA 98133 - DIVERSIFIED STRATEGIES INVESTMENTS
2123 N 148TH STREET, SHORELINE, WA 98133 - DELANEY MARK L

HORIZONTAL DATUM

NAD 1983/91

VERTICAL DATUM

NAVD88

BENCHMARK

WGS BENCHMARK B25

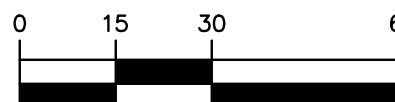
EL: 436.02

PROJECT BENCHMARKS

PROJECT BENCHMARK 1:
SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:
SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET
EL: 405.62

SCALE: 1" = 30'



LOTS/TRACTS HARDSCAPE AREAS

LOTS/TRACTS	TOTAL AREA (SQ. FT.)	IMPERVIOUS COVERAGE (SQ. FT.)	IMPERVIOUS COVERAGE (%)
A	22,061	20,764	94%
8	7,190	226	3%
1	1,191	1,069	90%
2	985	871	88%
3	986	872	88%
4	986	872	88%
5	1,202	1,040	87%
6	1,580	1,068	68%
7	888	794	89%
8	888	794	89%
9	1,277	1,008	79%
10	1,277	1,009	79%
11	888	796	90%
12	888	795	90%
13	1,217	1,030	85%
14	952	851	89%
15	952	851	89%
16	952	851	89%
17	1,139	1,021	90%
18	1,404	1,125	80%
19	865	826	95%
20	865	825	95%
21	865	822	95%
22	1,397	1,114	80%
23	1,436	1,112	77%
24	911	821	90%
25	920	832	90%
26	944	831	88%
27	1,375	1,111	81%
28	1,379	1,053	76%
29	960	843	88%
30	960	843	88%
31	961	843	88%
32	961	843	88%
33	961	843	88%
34	962	843	88%
35	1,774	1,247	70%
36	1,557	1,197	77%
37	896	801	89%
38	896	800	89%
39	896	796	89%
40	1,176	995	85%
41	1,456	1,066	73%
42	896	800	89%
43	896	800	89%
44	896	796	89%
45	1,428	1,157	81%
46	1,428	1,184	83%
47	896	800	89%
48	896	800	89%
49	896	800	89%
50	896	796	89%
51	1,428	1,060	74%
52	1,428	1,060	74%
53	896	800	89%
54	896	800	89%
55	896	800	89%
56	896	800	89%
57	1,365	1,029	75%
58	1,351	982	73%
59	760	736	97%
60	760	736	97%
61	1,152	993	86%
62	1,152	1,013	88%
63	760	736	97%
64	760	736	97%
65	760	736	97%
66	1,152	944	82%
67	1,152	964	84%
68	760	736	97%
69	764	739	97%
70	1,380	1,021	74%
TOTAL	103,872	84,368	81%

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

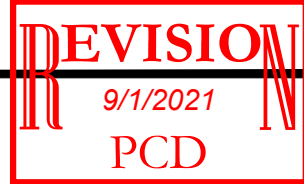


PRELIMINARY PLAT
5 DEGREES
PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

DATE: JUNE 2020
DESIGNED: GINA R BROOKS, P.E.
DRAWN: DAVID VAUGHN
APPROVED: GINA R. BROOKS, P.E.
PROJECT MANAGER: GINA R. BROOKS, P.E.

SHEET
1
PROJECT NUMBER
19133

PLN20-0139



8/12/2021 9:39 AM J:\2019\19133\ENGINEERING\FINAL SHEETS\PRELIMINARY SUBDIVISION PLANS\19133 PRELIMINARY PLATTING

HORIZONTAL DATUM

NAD 1983/91

VERTICAL DATUM

NAV088

BENCHMARK

WSS BENCHMARK B25

EL: 436.02

PROJECT BENCHMARKS

PROJECT BENCHMARK 1:
SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:
SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET
EL: 405.62

LEGAL DESCRIPTION

TPN 777130-0055:
LOT 1 IN BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0060:
LOT 2 IN BLOCK 2 OF SHORELINE HEIGHTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0065:
LOT 3 IN BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY AUDITOR, WASHINGTON.

TPN 777130-0070:
LOT 4, BLOCK 2 OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, IN KING COUNTY, WASHINGTON.

TPN 777130-0135:
LOT 17, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NUMBER 20190620000657, IN KING COUNTY, WASHINGTON.

TPN 777130-0140:
LOT 18, BLOCK 2, SHORELINE HEIGHTS, A REPLAT OF TRACTS 6 AND 7, BLOCK 4, GREEN LAKE FIVE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, AND AMENDED BY DOCUMENT RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0145:
LOT 19, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4, RECORDS OF KING COUNTY, WASHINGTON.

TPN 777130-0150:
LOT 20, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.

TPN 777130-0125:
LOTS 15 AND 16, BLOCK 2, SHORELINE HEIGHTS, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 44 OF PLATS, PAGE 4 AND ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.

EXCEPT THE EAST 17.00 FEET OF SAID LOT 15 THEREOF;

(ALSO KNOWN AS LOT A OF CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT NO. SHLA 2010-02 RECORDED ON JUNE 23, 2010 AS RECORDING NO. 20100623900002, IN THE OFFICIAL RECORDS OF KING COUNTY, WASHINGTON.)

TPN 777130-0115:
LOT B, CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT NO. SHLA 2010-02 RECORDED JUNE 23, 2010 UNDER RECORDING NO. 20100623900002, IN KING COUNTY, WASHINGTON.

TPN 777130-0110:
LOT 12 AND THE EAST HALF OF LOT 13 IN BLOCK 2, SHORELINE HEIGHTS, AS PER PLAT RECORDED IN VOLUME 44 OF PLATS, PAGE 4, AND PER ALTERATION OF THE PLAT OF SHORELINE HEIGHTS RECORDED JUNE 20, 2019 UNDER RECORDING NO. 20190620000657, IN KING COUNTY, WASHINGTON.

RESTRICTIONS

TPN 777130-0055:

- THIS SITE IS SUBJECT TO AN EASEMENT FOR SLOPES, CUTS AND FILLS AS DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 6683408. (SHOWN HEREON)
- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0060:

- THIS SITE IS SUBJECT TO AN EASEMENT FOR SLOPES, CUTS AND FILLS AS DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 6683408. (SHOWN HEREON)
- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20010212001229. (NOTHING TO PLOT, NOTED HERE)
- THIS SITE IS SUBJECT TO THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "OIL TANK DECOMMISSIONED" RECORDED UNDER KING COUNTY RECORDING NUMBER 20010212001230. (NOTHING TO PLOT, NOTED HERE)
- THIS SITE IS SUBJECT TO THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "LOW INCOME HOUSING COVENANT AGREEMENT" RECORDED UNDER KING COUNTY RECORDING NUMBER 20010212001230. (NOTHING TO PLOT, NOTED HERE)
- THIS SITE IS SUBJECT TO THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "AFFORDABLE HOUSING COVENANT AGREEMENT" RECORDED UNDER KING COUNTY RECORDING NUMBER 20020621000155. (NOTHING TO PLOT, NOTED HERE)
- THIS SITE IS SUBJECT TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "COVENANT" RECORDED UNDER KING COUNTY RECORDING NUMBER 20020627001994. (NOTHING TO PLOT, NOTED HERE)

TPN 777130-0065:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0070:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0110:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0115:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

RESTRICTIONS CONTINUED

TPN 777130-0125:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.
- THIS SITE IS SUBJECT TO THE TERMS, COVENANTS, CONDITIONS, RESTRICTION AND EASEMENTS AS SHOWN ON LOT LINE ADJUSTMENT NUMBER SHLA 2010-02, RECORDED UNDER KING COUNTY RECORDING NUMBER 20100623900002. (NOTHING TO PLOT, NOTED HERE)

TPN 777130-0135:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0140:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.
- THIS SITE IS SUBJECT TO CONDITIONS, NOTES, EASEMENTS, PROVISIONS, AND/OR ENCROACHMENTS AS DELINEATED ON THE RECORD OF SURVEY RECORDED IN VOLUME 105 OF SURVEYS, PAGE 126, UNDER KING COUNTY RECORDING NUMBER 950909002. (NOTHING TO PLOT, NOTED HERE)

TPN 777130-0145:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

TPN 777130-0150:

- THIS SITE IS SUBJECT TO RESTRICTIONS, CONDITIONS, DEDICATIONS, NOTES, EASEMENT AND PROVISIONS, IF ANY, AS SHOWN ON THE FACE OF THE PLAT OF SHORELINE HEIGHTS, A REPLAT OF TRACTS 6, AND 7 BLOCK 4, GREEN LAKE FIVE ACRE TRACTS RECORDED IN VOLUME 44 OF PLATS, PAGE 4, (NOTHING TO PLOT, NOTED HERE) ALTERATION OF SAID PLAT DISCLOSED BY INSTRUMENT RECORDED UNDER KING COUNTY RECORDING NUMBER 20190620000657.

BASIS OF BEARINGS

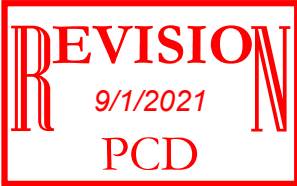
N88°9'39"W BETWEEN THE TWO FOUND MONUMENTS IN THE CENTERLINE OF NORTH 147TH STREET.

REFERENCES

- CITY OF SHORELINE BOUNDARY LINE ADJUSTMENT SHLA 2010-02, RECORDED IN VOLUME 272 OF SURVEYS, PAGE 282, UNDER RECORDING NUMBER 20100623900002, KING COUNTY, WASHINGTON.
- SHORELINE HEIGHTS, BLOCK 2, RECORDED IN VOLUME 44 OF PLATS, PAGE 4, UNDER RECORDING NUMBER 3677754, KING COUNTY, WASHINGTON.

NOTES

- ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM FIRST AMERICAN TITLE INSURANCE COMPANY FILE NUMBERS NCS-967201-WA1 DATED JUNE 2, 2020, NCS-967202-WA1 DATED JUNE 1, 2020, NCS-967205-WA1 DATED JUNE 1, 2020, NCS-967206-WA1 DATED JUNE 1, 2020, NCS-968699-WA1 DATED JUNE 1, 2020, NCS-968698-WA1 DATED JUNE 2, 2020, NCS-968697-WA1 DATED JUNE 1, 2020, NCS-968696-WA1 DATED JUNE 1, 2020, NCS-967208-WA1 DATED JUNE 2, 2020, NCS-967203-WA1 DATED JUNE 2, 2020, NCS-967204-WA1 DATED JUNE 1, 2020. IN PREPARING THIS MAP, CORE DESIGN, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS CORE DESIGN, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY THE REFERENCED FIRST AMERICAN TITLE INSURANCE COMPANY FILE NUMBERS. CORE DESIGN, INC. HAS RELIED WHOLLY ON FIRST AMERICAN TITLE INSURANCE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND THEREFORE CORE DESIGN, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.
- THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON JANUARY 10, 2020. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN DECEMBER, 2019.
- PROPERTY AREA =
TOTAL: 106,291 SQUARE FEET (2.4401± ACRES)
TPN 777130-0055: 8,163± SQUARE FEET (0.1874± ACRES)
TPN 777130-0060: 8,163± SQUARE FEET (0.1874± ACRES)
TPN 777130-0065: 8,171± SQUARE FEET (0.1876± ACRES)
TPN 777130-0070: 8,175± SQUARE FEET (0.1877± ACRES)
TPN 777130-0135: 8,175± SQUARE FEET (0.1877± ACRES)
TPN 777130-0140: 8,171± SQUARE FEET (0.1876± ACRES)
TPN 777130-0145: 8,163± SQUARE FEET (0.1874± ACRES)
TPN 777130-0150: 8,163± SQUARE FEET (0.1874± ACRES)
TPN 777130-0125: 14,045± SQUARE FEET (0.3224± ACRES)
TPN 777130-0115: 14,606± SQUARE FEET (0.3353± ACRES)
TPN 777130-0110: 12,296± SQUARE FEET (0.2823± ACRES)
- ALL DISTANCES ARE IN US FEET AT GROUND LEVEL.
- BOUNDARY INFORMATION SHOWN HEREON IS DERIVED FROM OBSERVATION OF CONTROLLING MONUMENTATION AND INTERPRETATION OF RECORD DESCRIPTIONS AND OTHER EVIDENCE. TOPOGRAPHIC INFORMATION SHOWN HEREON IS RELATED TO THE BOUNDARY BY DIRECT FIELD OBSERVATION FROM CONTROLLING MONUMENTATION.
- THIS IS A FIELD TRAVERSE SURVEY. A THREE SECOND COMBINED ELECTRONIC TOTAL STATION WAS USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN THE CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN WAC 332-130-090. ALL MEASURING INSTRUMENTS AND EQUIPMENT ARE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.



Attachment B

EXHIBIT 16

8-13-21

DATE
JUNE 2020
DESIGNED
GIVA R. BROOKS, P.E.
DRAWN
DAVID VAUGHN
APPROVED
GIVA R. BROOKS, P.E.
PROJECT MANAGER

REVISIONS
REVISED PER CITY COMMENTS
4/21/2021
REVISED PER CITY COMMENTS
8/13/20

NO
1

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.2877

PRELIMINARY PLAT
5 DEGREES
PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

SHEET
2
PROJECT NUMBER
19133



Project Reviews

City of Shoreline

Attachment B

Project Number: **PLN20-0139**Description: **PRELIMINARY FORMAL UNIT LOT SUBDIVISION (70 LOTS)**Applied: **9/23/2020**

Approved:

Site Address: **14704 Meridian Ave N**

Closed:

Expired:

City, State Zip Code: **Shoreline, WA 98133-6724**Status: **UNDER REVIEW**Applicant: **PULTE HOMES OF WASHINGTON INC.**Parent Project: **PRE20-0026**Owner: **DIVERSIFIED STRATEGIES INVE**Contractor: **<NONE>**

Details:

SCOPE: CONSTRUCTION OF A 72 UNIT TOWNHOME DEVELOPMENT WITH ASSOCIATED ROADWAYS AND UTILITY INFRASTRUCTRE ON 11 UNDERLYING PARCELS AT 2105, 2117, 2123 & 2150 N. 148TH ST, 14704, 14710 & 14718 MERIDIAN AVE N, 2122, 2116, 2132 & 2142 N. 147TH STREET.

REF: **PRE20-0026, PLN20-0140, PLN20-0141**

****REVISED SCOPE: PRELIMINARY FORMAL SUBDIVISION FOR 72 UNIT LOTS. CONSTRUCTION NOT INCLUDED UNDER THIS TYPE C LAND USE APPLICATION.**-CL 10/14/2020**

****REVISED SCOPE: PRELIMINARY FORMAL SUBDIVISION FOR 70UNIT LOTS. CONSTRUCTION NOT INCLUDED UNDER THIS TYPE C LAND USE APPLICATION.**-CL 07/02/2021**

LIST OF REVIEWS

SENT DATE	RETURNED DATE	DUE DATE	TYPE	CONTACT	STATUS	REMARKS
Review Group: ALL						
11/17/2020	12/4/2020	12/4/2020	PROCEDURAL/SEPA/NOTICES	Cate Lee	COMPLETED	SEE NOTES
Notes: NEED TO RE-NOTICE. NOT IN PLANNED ACTION AREA, SO REGULAR SEPA COMMENT PERIOD APPLIES. APPLICANT DID NOT POST REQUIRED SIGNS BY NOA DATE SO HAVE TO RE-RE-NOTICE. SENT EMAIL TO ADAM WITH MATERIALS. EMAILS WITH APPLICANT EXPLAINING NEXT STEPS FOR SEPA. PLUS FOLLOW-UP WITH ADAM AND APPLICANT ON NOA MATERIALS. APPLICANT HAS POSTED UPDATED SIGNS. ADAM HAS COORDINATED SEATTLE TIMES AD. HE JUST NEEDS TO COMPLETE MAILING, POST ON WEBSITE, AND SEND CHECKLIST TO AGENCIES/TRIBES. ADAM COORDINATED MAILING, NEWSPAPER AD, POSTED ON WEBSITE AND SENT EMAIL TO SEPA AGENCIES. APPLICANT POSTED UPDATED SIGNS ONSITE.						
Review Group: AUTO						
			UTILITY		WAIVED	
Notes:						



Project Reviews City of Shoreline

Attachment B

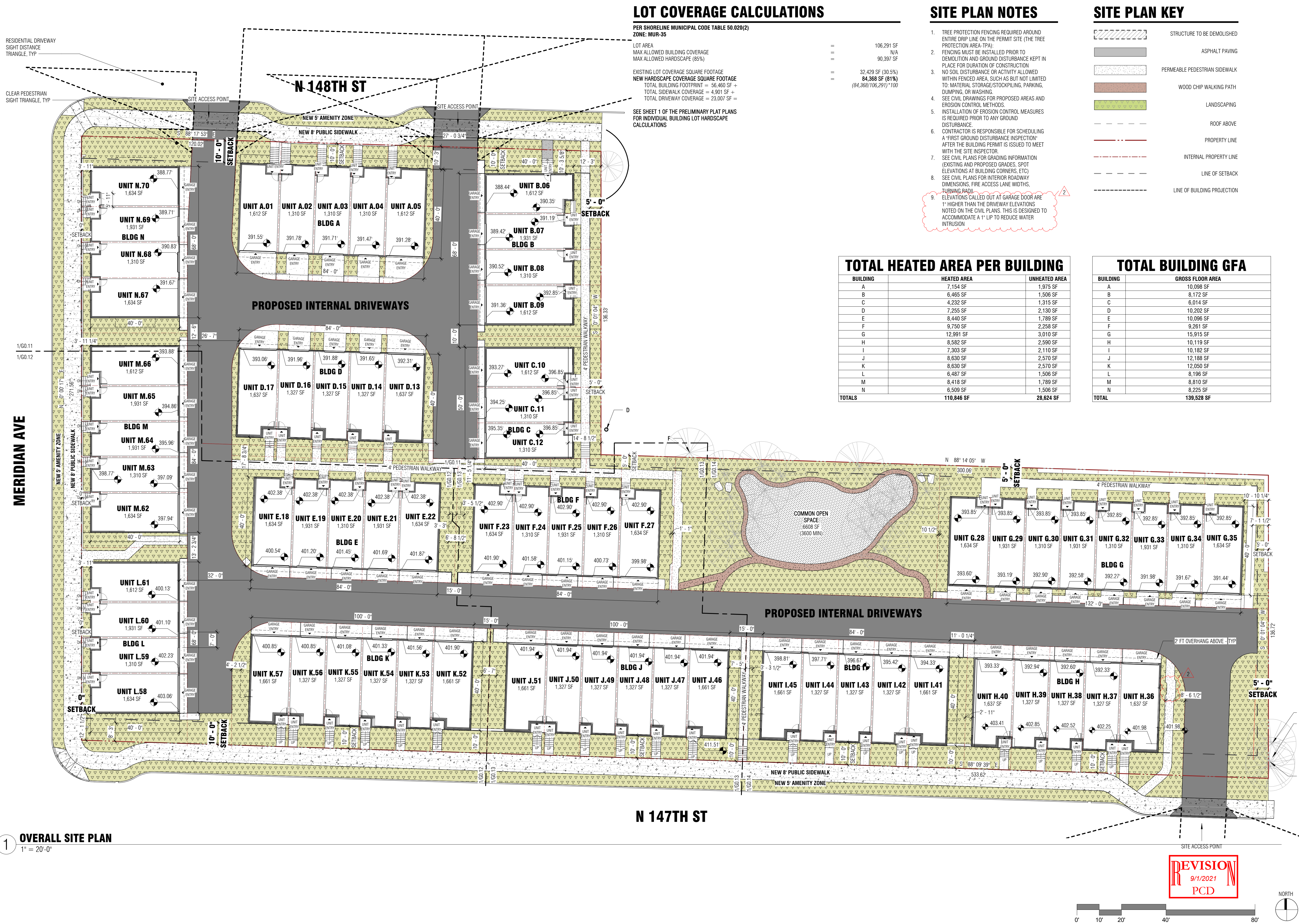
9/23/2020	10/19/2020	10/21/2020	COMPLETENESS REVIEW	Cate Lee	APPROVED	SEE COMPLETE LETTER
Notes:						
9/30/2020	10/5/2020	10/1/2020	INTAKE REVIEW	Joyce Copley	COMPLETED	
Notes:						
Joyce sent email today so I'm considering this done.						
10/19/2020	1/6/2021	12/18/2020	CIVIL	Taylor Brown	CONDITIONAL APPROVAL	
Notes:						
1. Conditions for approval of the plat:						
a. The stormwater facilities shall be complete and pass inspection prior to approval of the Final Short Plat, or the applicant shall post suitable bond or surety to guarantee the completion of improvements within one year of the approval of the final plat.						
b. A stormwater declaration of covenant in a form acceptable to the City shall be recorded with the King County Recorder's Office prior to approval of the final plat and the recording number shall clearly be noted on the final plat. If the applicant has posted a bond or surety, then the declaration of covenant shall be recorded on each lot shown on the final plat prior to release of the bond or surety. Or, in the alternate, covenant language in a form acceptable to the City shall be included on the face of the final plat.						
c. A joint use maintenance agreement identifying the rights and responsibilities of property owners within the final plat, or a homeowner's association, shall be executed for the maintenance and operation of the stormwater facilities and recorded with the King County Recorder's Office prior to approval of the final plat. Or, in the alternative, joint use maintenance agreement language shall be included on the face of the final plat. If the declaration of covenant is used to outline the maintenance requirements, it must expressly be stated on the final plat.						
2. Informational Comment: Show ROW Dedication with recording number on the final plat.						
10/19/2020	1/6/2021	12/18/2020	FIRE	Devon Wesenberg	APPROVED	need one hydrant
Notes:						
One hydrant is required somewhere in the middle of the road work.						
A hydrant spacing needs to be within 500 feet from another hydrant.						
10/19/2020	1/5/2021	12/18/2020	PLANNING - SUBDIVISION	Cate Lee	RESUBMITTAL REQUIRED	
Notes:						
10/19/2020	10/22/2020	10/22/2020	PROCEDURAL/SEPA/NOT ICES	Cate Lee	APPROVED	NOA
Notes:						
ADAM COMPLETED MAILING AND SEATTLE TIMES AD. APPLICANT POSTED SIGNS.						
10/19/2020	1/5/2021	12/18/2020	TREE TRACKING	Cate Lee	RESUBMITTAL REQUIRED	
Notes:						
10/19/2020	1/25/2021	12/18/2020	WASTEWATER	Brent Proffitt		DEVELOPER EXTENSION REQUIRED
Notes:						
Sanitary Sewer Developer Extension required to provide sewer service.						
Refer to the Developer Extension Manual for information on requirements: http://www.shorelinewa.gov/Home/ShowDocument?id=33799						



Project Reviews City of Shoreline

Attachment B

5/3/2021	7/19/2021	6/18/2021	PLANNING SUBDIVISION RESUBMITTAL	Cate Lee	RESUBMITTAL REQUIRED	
Notes:						
5/3/2021	7/19/2021	6/18/2021	TREE TRACKING RESUBMITTAL	Cate Lee	RESUBMITTAL REQUIRED	
Notes:						
9/9/2021	12/22/2021	10/14/2021	TREE TRACKING RESUBMITTAL	Cate Lee	APPROVED	
Notes:						
12/22/2021		2/28/2022	DECISION**	Cate Lee		
Notes:						
Review Group: REVIEWS						
11/16/2021	11/22/2021	11/22/2021	PROCEDURAL/SEPA/NOT ICES	Cate Lee		THRESHOLD DETERMINATION
Notes:						
EMAILED ALL DNS MATERIALS TO CARLA.						
COMPLETED BY CARLA.						



Board & Vellum
ARCHITECTURE AND DESIGN

115 15th Ave E, Suite 100 Seattle, WA 98112
info@boardandvellum.com | 206.707.8895

REGISTERED ARCHITECT
JEFFREY ALFRED PELLETIER
STATE OF WASHINGTON

PULTE 5 DEGREES SHORELINE

PROJECT ADDRESS:
14704 MERIDIAN AVE N
SHORELINE, WA 98153

OWNER:
PULTE HOMES
14704 MERIDIAN AVE N
SHORELINE, WA 98153

REVISION	DATE	DESCRIPTION
2	2021.08.19	PERMIT CORRECTIONS #2
1	2021.04.23	PERMIT CORRECTIONS #1

ISSUANCES

DATE	DESCRIPTION
2020.08.07	BUILDING PERMIT SET
2021.04.23	PERMIT CORRECTIONS #1
2021.07.27	PRICING SET
2021.08.19	PERMIT CORRECTIONS #2

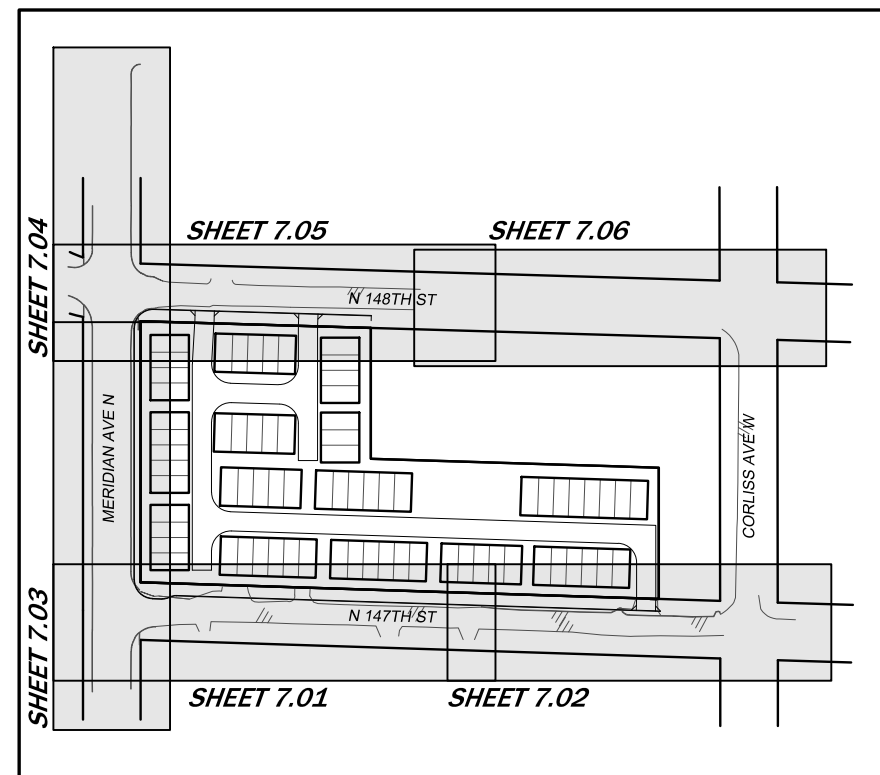
SITE PLAN - OVERALL SITE

SHEET NO.:

G1.10

CB GRATES/RIMS AND MEDALLIONS

ALL CB GRATES SHALL BE RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03 UNLESS OTHERWISE NOTED. CB'S NOTED WITH SOLID ROUND LIDS SHALL BE PER WSDOT STD. PLAN B-30.90-02. CB NOTED WITH SOLID RECTANGULAR LIDS SHALL BE PER WSDOT STD. PLAN B-30.20-04. STORM DRAIN MEDALLIONS SHALL BE INSTALLED AT EACH OPEN GRATE CB PER CITY STD. DTL. 725.



KEY MAP

REMOVED CB'S

CB'S 5, 7, 8, 10, 14, AND 16 HAVE BEEN REMOVED.



SCALE: 1" = 20'



PIPE MATERIALS, COVER, AND BEDDING

Pipe Material	Minimum Cover (in)	Pipe Bedding Requirements
Perforated Corrugated Polyethylene Pipe (CPEP) (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Non-perforated CPEP (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Reinforced concrete (RCP) or Polyvinylchloride (PVC - ASTM 3034)	12	Same as non-perforated CPEP
Ductile iron pipe	6	Same as non-perforated CPEP
Yard drain lines - any material	18	5/8" minus crushed rock, compacted in 8-in lifts.

DEMOLITION

SEE SITE DEVELOPMENT PLANS UNDER SEPARATE COVER FOR ABANDONMENT / REMOVAL OF EXISTING UTILITIES AND SURFACES.

GRIND AND OVERLAY REQUIREMENTS

COLD-PLANE BOTH ENDS OF THE OVERLAY PERPENDICULAR TO THE ROADWAY FOR AT LEAST 15 FEET TO PROVIDE A FLUSH TRANSITION. FOR HALF-STREET OR FULL-STREET OVERLAYS, COLD-PLANING (GRINDING) OF THE ENTIRE PAVING AREA IS REQUIRED (CENTERLINE TO GUTTER OR GUTTER TO GUTTER). WHEN CURB AND GUTTER DOES NOT EXIST, THE NEW OVERLAY SURFACE MAY, AT THE DIRECTOR'S DISCRETION, BE TAPERED TO MEET THE ELEVATION OF ADJACENT PAVED SURFACES. ALL ASPHALT JOINTS AND TAPERED TRANSITIONS SHALL BE SEALED WITH AR4000 OR EQUIVALENT. WHERE CURB AND GUTTER DOES NOT EXIST, THE SHOULDER SHALL BE RESTORED WITH CRUSHED ROCK.

DATUM

HORIZONTAL-NAVD 1983/91
VERTICAL-NAVD 88

BASIS OF BEARINGS

N88°09'39"W BETWEEN THE TWO FOUND MONUMENTS IN THE CENTERLINE OF NORTH 147TH STREET.

BENCHMARK

WGS BENCHMARK B25

ELEVATION: 436.02

PROJECT BENCHMARKS

PROJECT BENCHMARK 1:
SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:
SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET
EL: 405.62

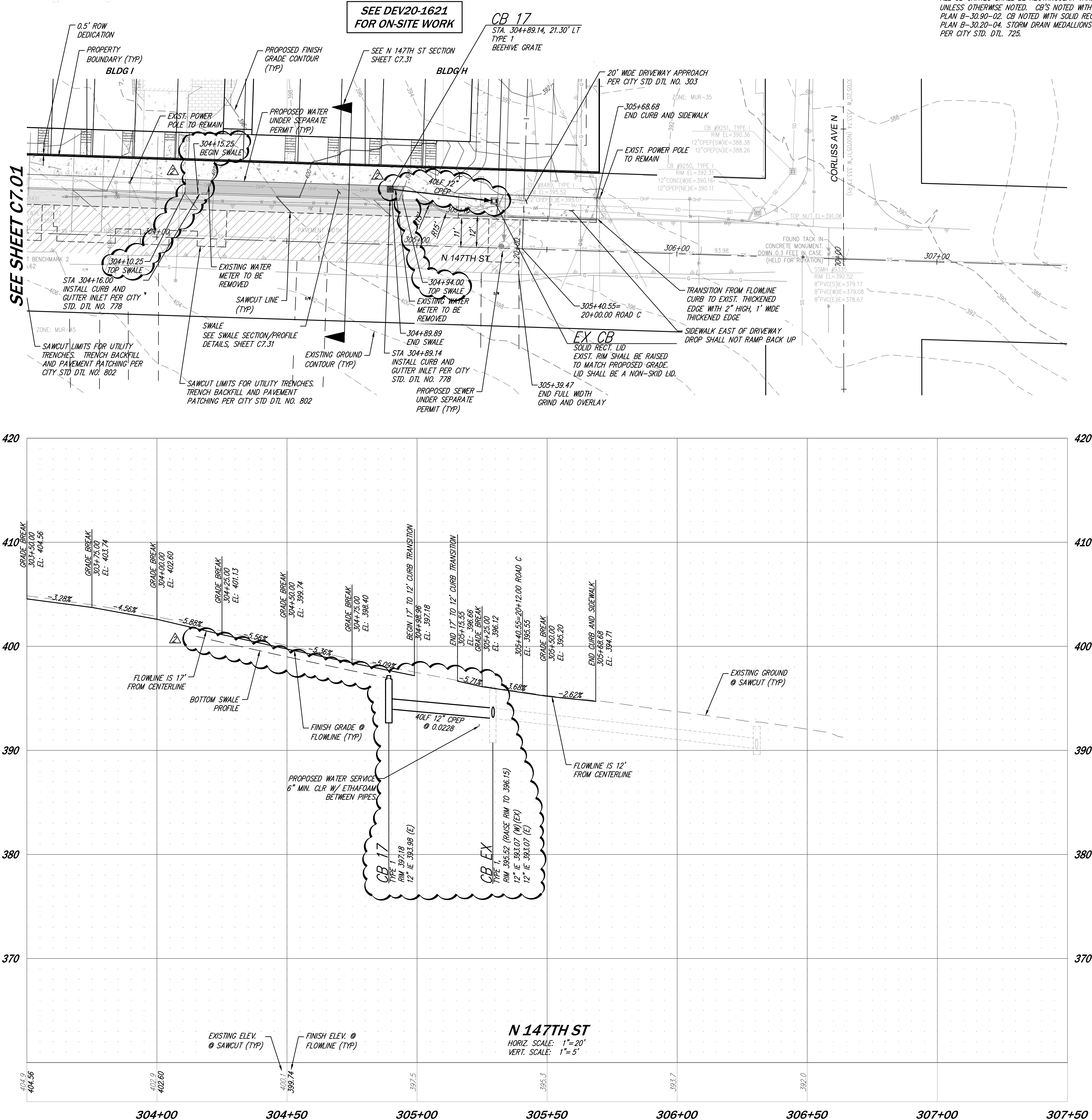
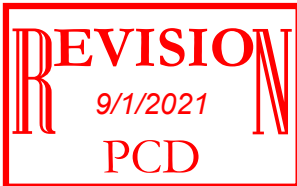
UNDERGROUND LOCATOR SERVICE

CALL BEFORE YOU DIG!
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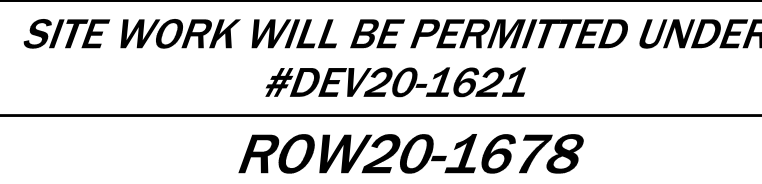
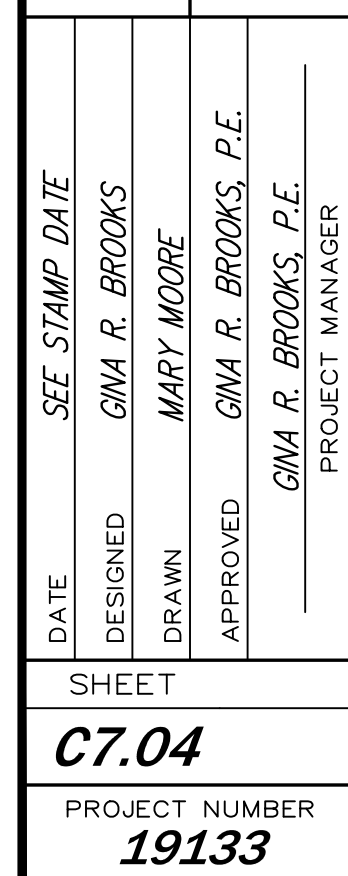
SITE WORK WILL BE PERMITTED UNDER

#DEV20-1621

ROW20-1678







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10' LONG ASPHALT TRANSITION RAMP PER CITY STD DTL 311

4' MAX HEIGHT CUT RECOVERY PER CITY STD DTL 501

1:1 PAVEMENT TAPER

5' WIDE PAVED LANDING

PEDESTRIAN RAIL PER CITY STD DTL 324

Elevations: 102+66.43, 384.43, 102+70.93, 384.36, 102+70.93, 384.08, 384.14, 385.10, 384.98, 385.58, EX 387.83, EX 387.4, EX 387.3

N 148TH ST

148TH SIDEWALK TR.
SCALE: 1" = 10'

Pipe Material	Minimum Cover (in)	Pipe Bedding Requirements
Perforated Corrugated Polyethylene Pipe (CPEP) (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Non-perforated CPEP (smooth interior)	24	5/8" minus crushed rock, compacted in 8-in lifts.
Reinforced concrete (RCP) or Polyvinylchloride (PVC - ASTM 3034)	12	Same as non-perforated CPEP
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HORIZONTAL-NAD 1983/91
VERTICAL-NAVD 88

N88°09'39"W BETWEEN THE TWO FOUND MONUMENTS IN THE CENTERLINE OF NORTH 147TH STREET.

WGS BENCHMARK B25

PROIEC

SET NAIL ON NORTH SIDE OF NORTH 148TH STREET
EL: 383.66

PROJECT BENCHMARK 2:

PROJECT BENCHMARK 2:
SET NAIL ON SOUTH SIDE OF NORTH 147TH STREET

UNDERGROUND LOCATOR SERVICES

CALL BEFORE YOU DIG!

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SITE WORK WILL BE PERMITTED UN

#DEV20-1621

ROW20-1678

NOV 29 1978

[illegible]

CORE
DESIGN

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

**FRONTAGE - N 148TH ST
5 DEGREES**

PULTE HOMES OF WASHINGTON, INC.
3535 FACTORIA BLVD SE, #600
BELLEVUE, WA 98006

DATE	DESIGNED	DRAWN	APPROVED	PROJECT MANAGER
SEE STAMP DATE	GINA R. BROOKS	MARY MOORE	GINA R. BROOKS, P.E.	GINA R. BROOKS, P.E.

SHEET

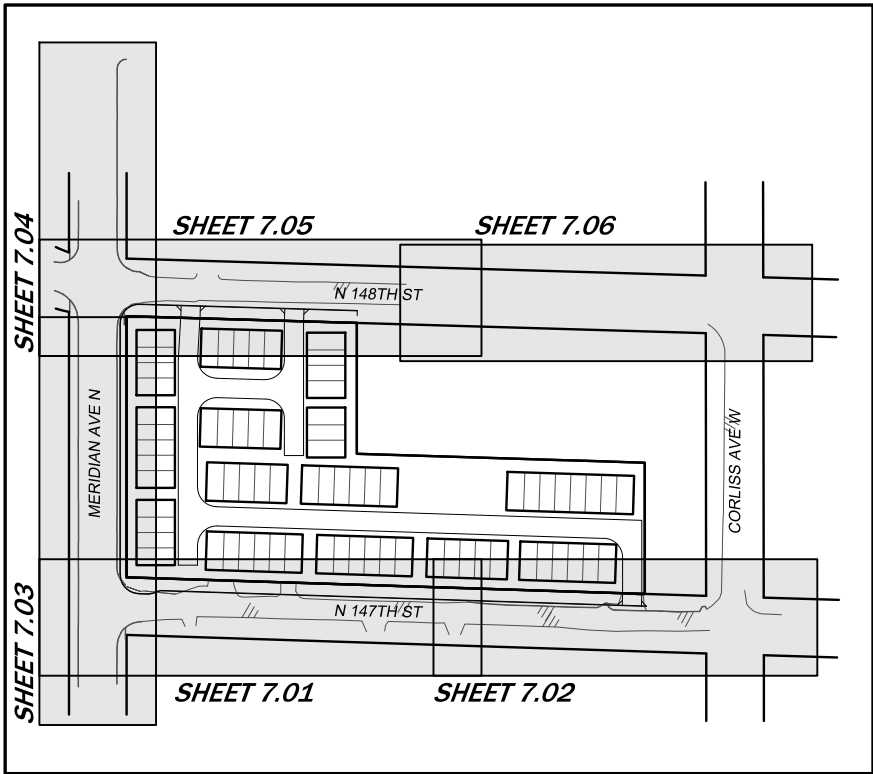
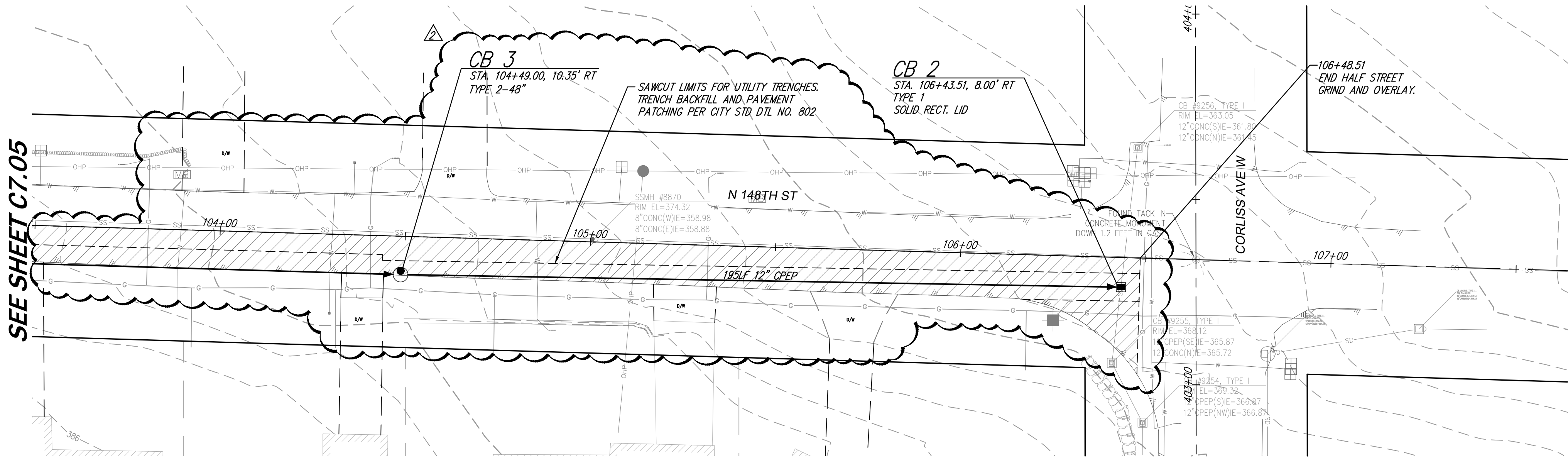
C7.05

PROJECT NUMBER
19133

ROW20-1678

CB GRATES/RIMS AND MEDALLIONS

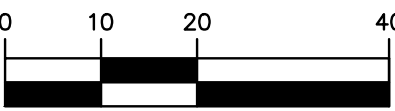
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KEY MAP



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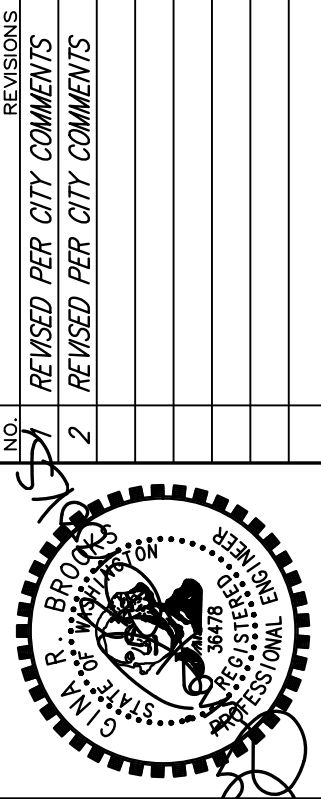
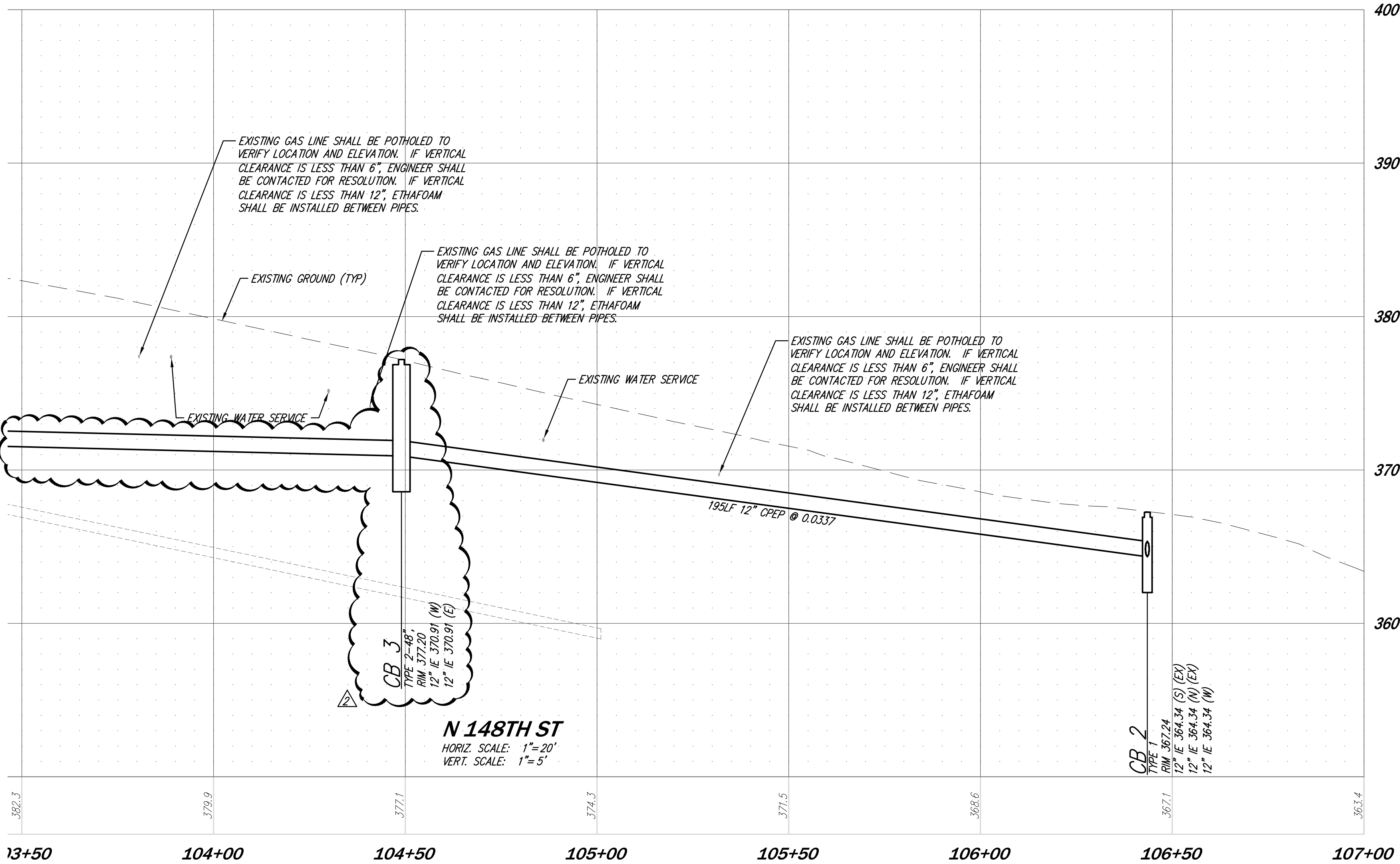
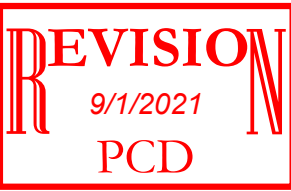
UNDERGROUND LOCATOR SERVICE

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SITE WORK WILL BE PERMITTED UNDER

#DEV20-1621

ROW20-1678



CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING



8-13-21

FRONTAGE - N 148TH ST
5 DEGREES
PULTE HOMES OF WASHINGTON, INC.
3535 FACIOLIA BLVD SE, #600
BELLEVUE, WA 98006

DATE: 9/1/2021
DESIGNED: GINA R. BROOKS
DRAWN: MARY MOORE
APPROVED: GINA R. BROOKS, P.E.
PROJECT MANAGER: GINA R. BROOKS, P.E.

SHEET: C7.06
PROJECT NUMBER: 19133

GENERAL NOTES

- ALL WORK MATERIALS SHALL BE IN CONFORMANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF SHORELINE AND THE LATEST EDITION OF THE WSDOT STANDARDS AND SPECIFICATIONS. A SET OF APPROVED PLANS SHALL BE KEPT ON-SITE AT ALL TIMES DURING CONSTRUCTION.
- THE JUNCTION BOX AND CONDUIT LOCATIONS SHOWN ARE APPROXIMATE. JUNCTION BOXES SHALL BE PLACED OUTSIDE OF SIDEWALKS UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER.
- THE LOCATIONS OF FEATURES AND UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AS NECESSARY.
- THE CONTRACTOR SHALL SUBMIT A REQUEST TO THE INSPECTOR FOR MATERIALS APPROVAL AT THE EARLIEST POSSIBLE DATE.
- ALL WORK SHALL BE CONSISTENT WITH UTILITY AGENCY REQUIREMENTS. THE CONTRACTOR SHALL CONTACT ALL PERTINENT UTILITY AGENCIES 48 HOURS BEFORE COMMENCING WORK, AND SHALL COORDINATE WITH AFFECTED UTILITY AGENCIES THROUGHOUT THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANY AND THE CITY OF SHORELINE IMMEDIATELY UPON DAMAGE.
- AS PART OF THE DESIGN PROCESS, THE ENGINEER HAS ATTEMPTED TO CONFIRM THAT THERE ARE NOT CONFLICTS WITH OVERHEAD POWER LINES OR SUBSURFACE UTILITIES. HOWEVER, IT IS POSSIBLE FOR THE EXISTING OR PROPOSED CONDITIONS TO CHANGE PRIOR TO IMPLEMENTATION OF THE SCOPE OF WORK IDENTIFIED ON THESE DOCUMENTS. AS THE FIRST ORDER OF BUSINESS, THE CONTRACTOR SHALL CONFIRM THAT THERE ARE NOT CONFLICTS WITH SUBSURFACE UTILITIES. ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THAT THERE IS A MINIMUM 10-FT CLEARANCE PROVIDED BETWEEN OVERHEAD POWER LINES AND THE PROPOSED LUMINAIRE POLES PRIOR TO POLE PLACEMENT. ADDITIONAL CLEARANCE MAY BE REQUIRED AS DIRECTED BY THE UTILITY. THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY IF A CONFLICT IS DISCOVERED.

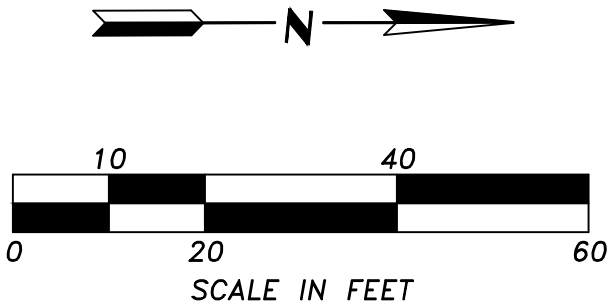
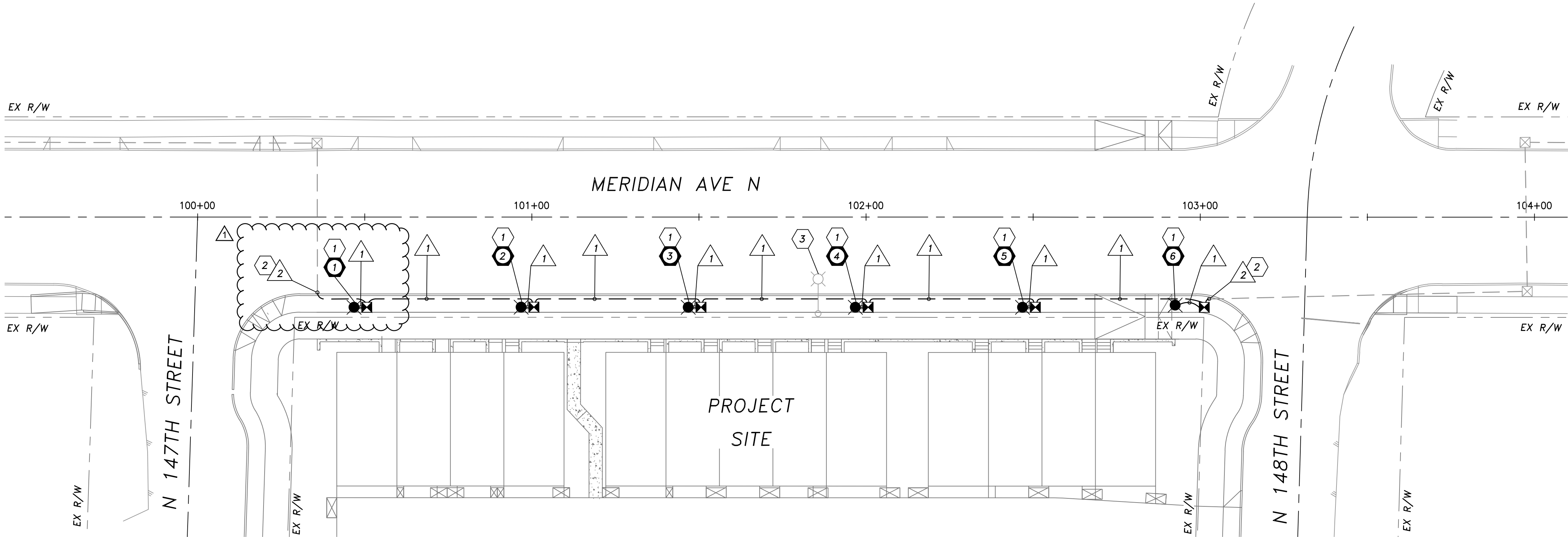
CONSTRUCTION NOTES

- FURNISH AND INSTALL NEW FOUNDATION AND LUMINAIRE POLE PER ILLUMINATION SCHEDULE, THIS SHEET, CITY OF SHORELINE STANDARD DETAIL NUMBER 440, AND CITY OF SEATTLE STANDARD PLAN 543B.
- INTERCEPT AND EXTEND EXISTING CONDUIT AND CONDUCTORS TO NEW JUNCTION BOX. SPLICE NEW ILLUMINATION CONDUCTORS TO EXISTING ILLUMINATION CONDUCTORS WITH SPLICE KIT IN NEW JUNCTION BOX.
- REMOVE EXISTING POLE AND FOUNDATION. FILL AND COMPACT VOID.

ILLUMINATION WIRING SCHEDULE					
△ NO.	RACEWAY CONDUIT SIZE	ILLUM. #8		EQUIP. GROUND***	
		EX	NEW	EX	NEW
1	2" SCH40 PVC		2		1
2	2" EX/2" SCH80 PVC**	2*		1*	

* RE-USE EXISTING CONDUCTORS; INSTALL NEW CONDUCTORS IF SUFFICIENT SLACK IS NOT AVAILABLE.
** OR MATCH EXISTING CONDUIT SIZE, TYPE AND COUNT.
*** ALL NON-METALLIC CONDUITS CONTAINING COPPER CONDUCTORS SHALL INCLUDE GROUND WIRE. GROUND WIRE SIZE SHALL MATCH THE LARGEST CONDUCTOR (MIN #8 AWG OR AS NOTED OTHERWISE IN THE WIRE NOTES)

ILLUMINATION POLE SCHEDULE											
POLE ID	STREET	△	STATION	OFFSET	POLE HEIGHT	LUMINAIRE TYPE	POLE/BASE TYPE	SERVICE/CIRCUIT	VOLTAGE	WATTAGE /TYPE	DISTRIBUTION
1	MERIDIAN AVE N		100+47.0	27.0' RT	12'	SEATTLE CITY LIGHT CATALOG NUMBER 5723.15	SEATTLE CITY LIGHT CATALOG NUMBER 5756.08	EX	240	35 LED	TYPE V
2	MERIDIAN AVE N		100+97.0	27.0' RT	12'	SEATTLE CITY LIGHT CATALOG NUMBER 5723.15	SEATTLE CITY LIGHT CATALOG NUMBER 5756.08	EX	240	35 LED	TYPE V
3	MERIDIAN AVE N		101+47.0	27.0' RT	12'	SEATTLE CITY LIGHT CATALOG NUMBER 5723.15	SEATTLE CITY LIGHT CATALOG NUMBER 5756.08	EX	240	35 LED	TYPE V
4	MERIDIAN AVE N		101+97.0	27.0' RT	12'	SEATTLE CITY LIGHT CATALOG NUMBER 5723.15	SEATTLE CITY LIGHT CATALOG NUMBER 5756.08	EX	240	35 LED	TYPE V
5	MERIDIAN AVE N		102+47.0	27.0' RT	12'	SEATTLE CITY LIGHT CATALOG NUMBER 5723.15	SEATTLE CITY LIGHT CATALOG NUMBER 5756.08	EX	240	35 LED	TYPE V
6	MERIDIAN AVE N		102+97.0	27.0' RT	12'	SEATTLE CITY LIGHT CATALOG NUMBER 5723.15	SEATTLE CITY LIGHT CATALOG NUMBER 5756.08	EX	240	35 LED	TYPE V



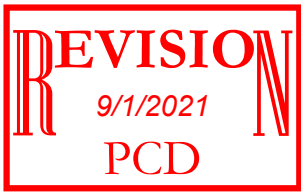
LEGEND		
EXIST.	NEW	DESCRIPTION
⊠	⊠	JUNCTION BOX TYPE 1, 2
	⊗	LIGHT STANDARD
- - -	- - -	CONDUIT/CONDUCTOR
	△	STREET LIGHT POLE ID
	△	WIRE NOTE
	⬡	CONSTRUCTION NOTE

FILE NAME	△ REVISION 1 - PERMIT CORRECTIONS #1	04/20/21	MJG
TIME			
DESIGNED BY: MJG			
ENTERED BY: MJG			
CHECKED BY: MJR			
PROJ. ENGR.			
REGIONAL ADM.	REVISION	DATE	BY



Transportation Engineering NorthWest

Transportation Planning | Design | Traffic Impact & Operations
PO Box 65254, Seattle, WA 98155 | Office (206) 361-7333
Project Contact: Michael Read
Phone: 206-999-4145



5 DEGREES
ILLUMINATION PLAN

CITY OF SHORELINE

APRIL 2021

IL1

SHEET
1
OF
1
SHEETS



Development Services Office
 700 Fifth Ave, Suite 2748 | PO Box 34018
 Seattle, WA 98124
 (206) 684-3333
 SPUWaterAvailability@seattle.gov

Attachment B
Water Availability Certificate
APPROVED WITH CONTRACT



WAC Number: SPUE-WAC-20-00961
Project Number(s): PRE20-0026
Project Address: 2105 N 148TH ST
Development Site: DV1167313
Requested For: Lot Boundary Adjustment
Certified By: Janet Thomas
Certified Date: September 02, 2020
Expiration Date: March 02, 2022

Water availability for project number PRE20-0026 may be approved at this time.

Property owner may order water service. Visit [Water Service - Understanding the process](#) or contact the Development Services Office at SPU_DSO@seattle.gov or 206-684-3333 for next steps.

System Requirements: Design and Install approximately 135 feet of 8-inch ductile iron pipe water main in N 148th Street extending from the end of the existing 8-inch main to the east parcel boundary, including appurtenance(s).

New meter location is available off the water main(s) in: N 148th St, after installation of system improvements.

- If the proposed project changes after this Water Availability Certificate is certified, or if the current plan submitted to SPU does not detail the entire scope of the proposed project, water requirements may change, and a new Water Availability Certificate may be required.
- Fire flow or other Fire Department requirements may alter water system needs at any time.
- Water availability requirements will change if existing system cannot support desired water service.

Parcel ID: 7771300055

Project Description: Proposed development of 72 townhome units housed within multiple buildings. Parcel Numbers: 7771300110, 7771300115, 7771300125, 7771300135, 7771300140, 7771300145, 7771300150, 7771300055, 7771300060, 7771300065, 7771300070

C-Number:	<u>C600644</u>	DSS Project Number:	<u>20200254</u>
Invoice Number:	<u>20200735</u>	Storm Receipt Number:	<u>42782691</u>

Existing Water Service(s):

Size:	<u>0.75 inch(es)</u>	Type:	<u>DOM</u>	Material:	<u>Galvanized Iron</u>	Status:	<u>ACT</u>
Size:	<u>0.75 inch(es)</u>	Type:	<u>DOM</u>	Material:	<u>Copper</u>	Status:	<u>ACT</u>
Size:	<u>0.75 inch(es)</u>	Type:	<u>DOM</u>	Material:	<u>Copper</u>	Status:	<u>ACT</u>
Size:	<u>0.75 inch(es)</u>	Type:	<u>DOM</u>	Material:	<u>Copper</u>	Status:	<u>ACT</u>
Size:	<u>0.75 inch(es)</u>	Type:	<u>DOM</u>	Material:	<u>Plastic</u>	Status:	<u>ACT</u>
Size:	<u>0.75 inch(es)</u>	Type:	<u>DOM</u>	Material:	<u>Copper</u>	Status:	<u>ACT</u>
Size:	<u>0.75 inch(es)</u>	Type:	<u>DOM</u>	Material:	<u>Copper</u>	Status:	<u>ACT</u>
Size:	<u>0.75 inch(es)</u>	Type:	<u>DOM</u>	Material:	<u>Copper</u>	Status:	<u>ACT</u>



**Seattle
Public
Utilities**

Development Services Office

700 Fifth Ave, Suite 2748 | PO Box 34018
Seattle, WA 98124
(206) 684-3333
SPUWaterAvailability@seattle.gov

Attachment B
Water Availability Certificate
APPROVED WITH CONTRACT

RECEIVED
09/23/2020
PCD

Size: <u>1 inch(es)</u>	Type: <u>DOM</u>	Material: <u>Copper</u>	Status: <u>ACT</u>
Size: <u>0.75 inch(es)</u>	Type: <u>DOM</u>	Material: <u>Copper</u>	Status: <u>ACT</u>
Size: <u>1 inch(es)</u>	Type: <u>DOM</u>	Material: <u>Copper</u>	Status: <u>ACT</u>

Existing Water Main(s):

Size: <u>4 inch(es)</u>	Material: <u>Steel</u>	Elevation: <u>380 feet</u>	Installation Year: <u>1947</u>
Class: <u>UNK</u>	Pressure Zone: <u>RH590</u>	Static Pressure: <u>91 PSI</u>	Right-of-Way Width: <u>60 feet</u>

If fire flow information is needed, please contact the Development Services Office at SPU_DSO@seattle.gov or 206-684-3333.

Recommended design pressure is 20 psi less than static pressure. Refer to Washington Administrative Code 246-290-230.

The water system is in conformance with a County approved water comprehensive plan, and has water right claims sufficient to provide service.

One domestic water meter will serve the domestic water needs of a single legal parcel. Separate meters are required for each legal parcel. This may necessitate the installation of water utility improvements by the property owner.

Seattle Municipal Code (SMC) outlines water rates and regulations in [SMC Chapter 21.04](#). The State of Washington defines basic regulatory requirements to protect the health of consumers using public drinking water in [WAC Chapter 246-290](#).

Kendyl Hardy

From: Brent Proffitt
Sent: Friday, January 14, 2022 3:39 PM
To: Catherine Lee
Subject: RE: PLN20-0139 - WW Review

Status updated to conditional approval. Thanks Cate, and have a good weekend!

Brent Proffitt

Wastewater Utility Specialist | City of Shoreline
 17500 Midvale Avenue N, Shoreline, WA 98133
 w (206) 801-2578 | c (206) 818-0907 | www.shorelinewa.gov
*Supporting a sustainable and vibrant community through
 stewardship of our public infrastructure and natural environment.*



NOTICE OF PUBLIC DISCLOSURE: This email account is public domain. Any correspondence from or to this email account may be a public record. Accordingly, this email, in whole or in part, may be subject to disclosure pursuant to RCW 42.56, regardless of any claim of confidentiality or privilege asserted by an external party.

From: Catherine Lee <clee@shorelinewa.gov>
Sent: Friday, January 14, 2022 1:47 PM
To: Brent Proffitt <bproffitt@shorelinewa.gov>
Subject: PLN20-0139 - WW Review

Hi Brent,

You've entered in WW info on this TRAKiT review but no status. Will you enter a status? I am taking this to the Hearing Examiner on Tuesday so its really important.

I'm guessing the status is "conditional approval"?

The screenshot shows the SUPERION | TRAKiT software interface. On the left is a 'Relationships' sidebar with a tree view for 'Project # PLN20-0139'. The tree includes 'Parent Activities (1)', 'Projects (2)', 'Permits (1)', 'No Cases', and 'No Issues'. The main area displays a list of permit items for this project. The items are as follows:

Item	Group	Status	Reviewer	Remarks	Sent	Due	Returned
PROCEDURAL/SEPA/NO...	AUTO	RESUBMITTAL REQUIR...	Cate Lee	(no remarks)	10/19/20	12/18/20	1/5/2021
PROCEDURAL/SEPA/NO...	AUTO	APPROVED	Cate Lee	NOA	10/19/20	10/22/20	10/22/20
TREE TRACKING	AUTO	RESUBMITTAL REQUIR...	Cate Lee	(no remarks)	10/19/20	12/18/20	1/5/2021
WASTEWATER	AUTO	(no status)	Brent Proffitt	DEVELOPER EXTENSION REQUIRED	10/19/20	12/18/20	1/25/2021
PROCEDURAL/SEPA/NO...	ALL	COMPLETED	Cate Lee	SEE NOTES	11/17/20	12/4/20	12/4/20
PLANNING SUBDIVISI...	AUTO	RESUBMITTAL REQUIR...	Cate Lee	(no remarks)	5/3/2020	6/18/20	7/19/20

Thanks,



Cate Lee, AICP | Senior Planner
 Planning & Community Development Department
 17500 Midvale Avenue N, Shoreline, WA 98133
 206-801-2557
clee@shorelinewa.gov
 Pronouns: she/her

****Permit Technicians, Planners and Plans Examiners have in-person appointments available at City Hall and virtual appointments available online. Drop-in services are limited, and appointments are prioritized. Visit our [bookings page](#) to schedule an in-person or virtual appointment. Remote services are encouraged.**

Hours of operations – Monday, Tuesday, and Friday 8:00 to 5:00 and Wednesday and Thursday from 1:00 to 5:00.

For permit submittal questions email pcd@shorelinewa.gov or call 206-801-2500.

PLN19-0133 Blue Fern Townhomes **Preliminary Formal Subdivision** **Public Comment List**

<i>Comment Number</i>	<i>Commenter</i>
<i>Comment 1a</i>	Janet Way, Shoreline Preservation Society, received 14 January 2022
<i>Comment 1b</i>	Janet Way Addendum I, received 17 January 2022
<i>Comment 1c</i>	Janet Way Addendum II, received 18 January 2022
<i>Comment 2</i>	Susanne Tsoming, received 17 January 2022
<i>Comment 3</i>	Sandy Shettler, received 17 January 2022
<i>Comment 4</i>	Bethany Williamson, received 17 January 2022
<i>Comment 5</i>	Sam Beatt, received 17 January 2022
<i>Comment 6</i>	Dan Keefe, received 18 January 2022
<i>Comment 7</i>	Gordon Dass Adams, received 18 January 2022
<i>Comment 8</i>	Nancy Morris, received 18 January 2022
<i>Comment 9</i>	Josh Morris, received 18 January 2022
<i>Comment 10</i>	Isis Charest, received 18 January 2022
<i>Comment 11</i>	David Moehring, received 3 January 2022
<i>Comment 12</i>	Eric Sieverling, received 18 January 2022



c/o Janet Way
940 NE 147th St
Shoreline, WA 98155

January 14, 2022

Hearing Examiner
c/o Hearing Examiner Clerk @ hearingex@shorelinewa.gov
City of Shoreline
17500 Midvale Ave N
Shoreline, WA 98155

**Subject: Pulte Homes of Washington, Inc, Application No.: PLN20-0139, Permit Requested:
Preliminary Formal Subdivision**

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060). Description of Project: Division of eleven (11) parcels of land into seventy (70) lots to facilitate development of seventy (70) townhouse units.

Dear Hearing Examiner:

Please accept our comments here regarding the Pulte 5Degree Development Proposal Preliminary Formal Subdivision. We may follow up with further comment in addition to this letter.

I represent Shoreline Preservation Society which is a Party of Record, and we request Legal Standing on the matter before you. We have previously submitted comments during the preliminary comment period. Shoreline Preservation Society (SPS) is an all-volunteer WA State Non-profit which works to preserve places and important assets of Shoreline for their environmental and historic value. Our group includes persons who would be negatively affected by this project.

We believe the decisions made to allow this project to proceed were incorrect and we are disappointed that the staff did not advocate for more creative solutions with the developer to preserve the extraordinary huge trees on the site or to find ways to comply with the City's environmental goals for replacement trees.

Staff admit that this project greatly exceeds the amount of development required for a subdivision in this modest residential neighborhood. Senior Planner Catherine Lee states in her memo to Planning Director Rachel Markle, *“Environmental review was triggered by both the preliminary formal subdivision proposing 70 units lots, which exceeds the categorical exemption threshold for short subdivisions of nine (9) lots, and the proposed number of units (70), which exceeds the exemption threshold of 30 units for a residential structure.”*

1. Concerns about environmental impacts

We are extremely concerned about the potential environmental impact of the proposed development in the Meridian Park neighborhood, due to the planned loss of an Urban Forest grove of approximately 67 significant trees, many of which are large conifers, many of which are a half century old. To quote a statement from our previous letter, *“These trees are exceptional, especially since many of them form a contiguous cluster. This configuration protects against windfall, mitigates stormwater runoff, provides cooling and oxygenation, and provides valuable and rare wildlife habitat.”*

This forested grove which graces the existing neighborhood, has a significant size and with large coniferous trees which tower above the nearby Twin Ponds Park which lies only two blocks North, providing valuable migratory bird habitat and habitat for priority species such as raptors, pileated woodpecker, and according to WDFW the Little Brown Bat. Many of the bird species which also frequent the salmon habitat at Twin Ponds and other nearby forested groves depend upon these tall trees. The loss of this Urban Forest Grove will contribute to what is known by the organization the city partners with, Forterra, as “habitat fragmentation.” To quote a nearby neighbor, Claudia Turner who wrote in a comment letter on this proposal, *“Twin Ponds is rich with birds, reptiles, fish and other wildlife (even otters!) that can’t thrive without these connecting habitats.”*

We believe that the decision by staff to allow the extreme cutting of a valuable Urban Forest ecosystem with inadequate replacement trees required is very destructive to the local ecosystem and community values expressed in the Shoreline Comprehensive Plan. This was done with an “Exception” given to the developer because of fear of reduction of housing units to protect the significant trees that will be permitted for saving.

In the memo from Ms. Lee to Ms. Markle the “exception” is described:

Of these 67 trees, 16 are exempt from replacement and retention requirements, which means 27% of significant sized trees will be retained (19 / 70 = 0.2714). The code requires one hundred and thirty-nine (139) replacement trees. The applicant has requested, and been granted, a reduction as allowed by Exception SMC 20.50.360(C)(b), to one hundred and ten (110) replacement trees.

The above calculations, seem to us to highlight some fairly “fuzzy math” and demonstrate pretzel logic.

We believe this “Exception” is not warranted and deprives the community of the replacement trees it deserves. Shoreline has lost thousands of large, significant trees over the last few years, due to development and Light Rail expansion. This loss exacerbates ongoing impacts from Climate Change such as Heat Island Effect, demonstrated during the June 2021 Heat Wave and urban flooding resulting from recent storms. We believe that the Impact Fees the developer will be charged could pay for many of these replacement trees to be planted in nearby parks, or even school grounds, or other nearby streets to compensate for the devastating loss of the huge existing trees on site.

2. Destroying this Forested Grove goes against City Comprehensive Plan Goals on preventing Climate Change:

The Shoreline Comprehensive Plan serves as a guide to why this Pulte Development is not meeting our Goals or Policies on the Natural Environment. The loss of the 67 trees proposed at the Pulte Homes will contribute to air, water quality and climate change impacts for the entire city and work in direct opposition to the Goals and Policies in our Comprehensive Plan.

The first page highlights how Shoreline is designated as a Tree City USA and describes how we have pledged actions in signing on to many national and international accords.

“To demonstrate this commitment to sustainability, the City has also signed on to the U.S. Conference of Mayor’s Climate Protection Agreement, the Cascade Agenda, the Green City Partnerships Program, and the King County- Cities Climate Collaboration. In 2008, the City adopted an Environmental Sustainability Strategy and created a Green Team tasked with its implementation. By 2012, the Team completed substantial implementation of the Strategy, including launch of the Forevergreen website at: <http://shorelinewa.gov/forevergreen>”

The next page highlights all of our laudible goals on protecting our Natural Environment. This is all well and good if it were to actually apply to the development in question. However, the Pulte Development is clearly a negative zone in virtual denial of the Comp Plan environmental goals. Goal #10 is case in point how this project proposal goes directly against our Comprehensive Plan.

GOALS

Goal NE I. Minimize adverse impacts on the natural environment through leadership, policy, and regulation, and address impacts of past practices where feasible.

Goal NE II. Lead and support efforts to protect and improve the natural environment, protect and preserve environmentally critical areas, minimize pollution, and reduce waste of energy and materials.

Goal NE III. Regulate land disturbances and development to conserve soil resources and protect people, property, and the environment from geologic hazards, such as steep slope, landslide, seismic, flood, or erosion hazard areas.

Goal NE IV. Protect, enhance, and restore habitat of sufficient diversity and abundance to sustain indigenous fish and wildlife populations.

Goal NE V. Protect clean air and the climate for present and future generations through significant reduction of greenhouse gas emissions, to support Paris Climate Accord targets of limiting global warming to less than 1.5° C above pre-industrial levels. Local reduction targets will also promote efficient and effective solutions for transportation, clean industries, and development.

Goal NE VI. *Manage the stormwater system through the preservation of natural systems and structural solutions in order to:*

- *Protect water quality;*
- *Provide for public safety and services;*
- *Preserve and enhance fish and wildlife habitat, and critical areas;*
- *Maintain a hydrologic balance; and*
- *Prevent property damage from flooding and erosion.*

Goal NE VII. *Continue to require that natural and on-site solutions, such as infiltration and rain gardens, be proven infeasible before considering engineered solutions, such as detention.*

Goal NE VIII. *Preserve, protect, and where feasible, restore wetlands, shorelines, and streams for wildlife, appropriate human use, and the maintenance of hydrological and ecological processes.*

Goal NE IX. *Use education and outreach to increase understanding, stewardship, and protection of the natural environment.*

Goal NE X. *Maintain and improve the city's tree canopy.*

And further on the actual Policies section, the plan is quite specific in “Vegetation Protection” policies which would pertain to the Pulte Development.

These two policies in particular are pertinent:

- *NE19. Minimize removal of healthy trees, and encourage planting of native species in appropriate locations*
- *NE21. Identify and protect wildlife corridors prior to, during, and after land development through public education, incentives, regulation, and code enforcement.*

Also, under “Sustainability” the following policies should apply directly to this project proposal to prevent loss of the entire Urban Forest Grove:

- *NE45. Design natural infrastructure into projects whenever feasible to mimic ecological processes.*
- *NE46. Create incentives to encourage enhancement and restoration of wildlife habitat on both public and private property through new and existing programs, such as the Backyard Wildlife Habitat stewardship certification program.*

And policy NE 42 points out how we could govern more equitably by not only thinking about how much revenue a development could bring in? But how in the long run, a Sustainable Policy might pan out better by protecting these big trees for the benefit of the new residents and existing citizens of Shoreline?

- *NE42. Recognize that a sustainable community requires and supports economic development, human health, and social benefit. Make decisions using the “triple bottom line” approach to sustainability (environment, economy, and social equity).*

3. Stormwater treatment should include Natural Drainage Strategies

As far as we can perceive there is no attempt to provide any natural drainage solutions to the massive development replacing 11 single family lots and Urban Forest proposed, with over 70 townhome units, driveways and sidewalks. The expansion of impervious surface to this part of the Thornton Creek Watershed, which is already greatly stressed from expansions in development, is not mitigated by any strategy to address this problem. As previously discussed, Twin Ponds Park is only two blocks to the North and downhill. Groundwater and runoff are important issues for the water quality and quantity that supplies the ponds which are actually part of the Thornton Creek Waterway. The impervious surface will also contribute greatly to the Heat Island Effect already plaguing the region.

We believe that this development project shows yet another detrimental mark environmentally to this already massive blight for Shoreline and the Meridian Park neighborhood.

We ask how this massive expansion of development will replenish the ecosystem it has destroyed, especially the existing natural drainage and stormwater retention provided by the 67 tall trees that will be lost?

In Shoreline's Comprehensive Plan Capital Facilities element, the following policies should be adhered to with Natural Drainage Systems within the development plans. This could include preserving more of the existing large tree groves to anchor and enhance stormwater retention. This would require designs that leave more areas to allow for natural drainage designs and raingardens.

- **CF16:** *Promote water reuse and water conservation opportunities that diminish impacts on water, wastewater, and surface water systems, Sidewalk Boeing Creek Stormwater Improvements 76 COMPREHENSIVE PLAN Element 8 CAPITAL FACILITIES Goals and Policies and promote conservation or improvement of natural systems.*
- **CF17:** *Encourage the use of ecologically sound site design in ways that enhance provision of utility services. CF18: Support local efforts to minimize inflow and infiltration and reduce excessive discharge of surface water into wastewater systems.*

4. Impacts from additional traffic generated by this development

The additional traffic to be generated at this new development will exacerbate already excessive traffic on adjacent roadways and especially on N 145th, a State Highway (SR 523.) The Highway is backed up frequently during peak hours and is expected to be much worse as Light Rail goes online in two years. Those intersections for Meridian Ave and others are already near Level "F."

The project would generate "new impacts" not just those anticipated in a previous Planned Action review.

Also, there are calculations that are not realistic. According to experts we've consulted In our previous comment letter, we stated *"The project's traffic study underestimates expected traffic volumes. This is due to various factors, including a misapplication of sections of the Highway Capacity Manual including Special Report 209, the selection of the am peak instead of the commonly used pm peak, unreasonable trip allocations, and inaccurate assumptions of existing traffic volumes and pipeline project impacts."*

The traffic analysis that was presented by the developer, assumes these units are smaller and for “low rise apartment/condo” and would not generate as many trips as we believe are likely. The analysis should be based on Single family sized units.

Another serious concern is that a private school is only a block and a half away to the North on Meridian Ave. The Evergreen School in the mornings and afternoons, generates large volumes of traffic, or parents picking up or dropping off children. This could present a serious safety concern and conflicts as impatience could produce collisions or even worse, pedestrian accidents. And, there are at least two other schools in the vicinity. Lakeside School is just a few blocks away on the Seattle side on 145th and Parkwood Elementary School is just a few more blocks to the NW on N 155th. So, this development, which will presumably be home to some school aged children, will be contributing traffic volumes and density to an already congested area.

This School zone safety issue has not been addressed as far as we can tell in the plans.

For all of the above reasons, we respectfully urge that you DENY approval of this project and require that it be remanded to address the many detrimental impacts to our community that are likely to result otherwise.

Thank you for your attention..

Respectfully Submitted,

Janet Way, Chair

Shoreline Preservation Society



c/o Janet Way
940 NE 147th St
Shoreline, WA 98155

January 17, 2022

Hearing Examiner
c/o Hearing Examiner Clerk @ hearingex@shorelinewa.gov
City of Shoreline
17500 Midvale Ave N
Shoreline, WA 98155

Subject: Addendum to previous comment letter re Pulte Homes of Washington, Inc, Application No.: PLN20-0139, Permit Requested: Preliminary Formal Subdivision

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060). Description of Project: Division of eleven (11) parcels of land into seventy (70) lots to facilitate development of seventy (70) townhouse units.

Dear Shoreline Hearing Examiner:

Please accept this additional comment on the Pulte Homes of Washington, Inc Application No, PLN20-0139 from our organization Shoreline Preservation Society.

Upon inspection after a drive around the extended Parkwood neighborhood within one or two blocks, we noticed there are now many blocks of pending developments very near the Pulte Homes properties in question. All of these dozens of additional homes have large tree canopy which are also now at risk in the same neighborhood and watershed for Twin Ponds and Thornton Creek. There are at least 40 homes now boarded up and fenced for development surrounded by their existing large trees and vegetation.

This is in addition to the 11 homes in the development before the Hearing Examiner. And not counting another batch of 20 or more homes already gone and replaced by townhomes in adjacent blocks

containing virtually no landscaping, trees or vegetation to soften their look or livability for their residents.

It occurs to us that the ultimate impact to the watershed and community will be gravely affect by the “cumulative impacts” to the ecosystems by the massive loss of likely hundreds of significant trees, pervious surfaces, and other elements such as additional traffic. It boggles the mind to think of all the potential cumulative impacts of all of this development on the Parkwood neighborhood,

- the Thornton Creek Watershed, the air quality in summer when future “heat domes” descend,
- or when Climate Change events such as “100-year storms” hit,
- not to mention impact to wildlife habitat on site or downstream,
- and even to consider the carbon effect of hauling all these homes to landfills
- or when the Shoreline Fire Department uses them for practice drills as it appears will happen.
(See photos)

So, we ask what is the “cumulative impact” of all of this massive redevelopment? We ask that the additional upcoming development impacts be considered when deliberating on the Pulte Development project in context of the ongoing impacts, environmental and otherwise to our community.

We are attaching some photos of what is going on and ask that they be added to the record and considered by the Hearing Examiner and member of the public who care to consider.

Thank you for considering these additional concerns when deciding whether to permit the proposed development.

Sincerely,

Janet Way, Chair

Shoreline Preservation Society











c/o Janet Way
940 NE 147th St
Shoreline, WA 98155

January 18, 2022

Hearing Examiner
c/o Hearing Examiner Clerk @ hearingex@shorelinewa.gov
City of Shoreline
17500 Midvale Ave N
Shoreline, WA 98155

Subject: Addendum II to previous comment letter re Pulte Homes of Washington, Inc, Application No.: PLN20-0139, Permit Requested: Preliminary Formal Subdivision

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060). Description of Project: Division of eleven (11) parcels of land into seventy (70) lots to facilitate development of seventy (70) townhouse units.

Dear Shoreline Hearing Examiner:

Please accept this Addendum to our previous comments and comment points to be presented at the Hearing this evening. We appreciate your attention to the points we are raising about the proposed development.

Points for Hearing Examiner on Pulte

1. We believe that the determinations and decisions by staff violate the Goals and Policies of the Shoreline Comprehensive Plan. In particular, as we have highlighted the "Natural Environment"

and Capital Facilities chapters there are specific goals and policies, which are clearly being violated. The most obvious is **Goal NE X “Maintain and improve the city’s tree canopy.”**

2. We are concerned and question the staff determination that an "exception" in order to require fewer replacement trees is warranted. Any determination as to which trees could be cut is a "micro" decision that should be based on very specific locational information. While the arborist seems to believe that planting more replacement trees will somehow “harm” existing trees, we are not clear how that is scientifically supported?
3. “Cumulative Impacts” of the repeated development approvals in the surrounding neighborhood to the Pulte Development should be considered. We made a recent count and it’s clear that over 50 currently habitable “affordable” middle class homes are slated for destruction in the Pulte and surrounding neighborhood.
 - a. What is the cumulative impact to the Twin Ponds ecosystem, which is in fact a channel of Thornton Creek, drainage and groundwaters?
 - b. What is the cumulative impact to the bird habitat and the Migratory Bird Flyway in the hundreds of trees in the vicinity that will be eliminated by the Pulte and other nearby developments?
 - c. What is the cumulative impact of sending the tons of destroyed home materials to the landfill from the Pulte development and other nearby housing? Isn’t that adding additional methane producing material and increasing Climate Change impacts?
4. Also, the idea that reducing the canopy will eventually increase the health of the canopy is probably incorrect if a qualified arborist could offer an opinion.

There is a great deal of scientific study and evidence that trees actually thrive off of the interconnectedness to other nearby trees and in the soil from the network of fungus there.

Trees thrive quite close together in communities, and there is no analysis whatsoever of this connectivity of the existing trees in the soil discussed in the documents produced by the City or the developer to justify the “Exception”, and there is lots of new science about the nutrient exchange that occurs between trees.

From her book “Finding the Mother Tree” Suzanne Simard, Professor of **Forest Ecology** at the University of British Columbia. This excerpt describes how the trees in forest groves even ones like the Pulte Development Urban Forest Grove at risk have an interconnectedness:

“The trees soon revealed startling secrets. I discovered that they are in a web of interdependence, linked by a system of underground channels, where they perceive and connect and relate with an ancient intricacy and wisdom that can no longer be denied. I conducted hundreds of experiments, with one discovery leading to the next, and through this quest I uncovered the lessons of tree-to-tree communication, of the relationships that create a forest society. The evidence was at first highly controversial, but the science is now known to be rigorous, peer-reviewed, and widely published. It is no fairy tale, no flight of fancy, no magical unicorn, and no fiction in a Hollywood movie.

<https://suzannesimard.com/finding-the-mother-tree-book>

5. We find no provisions or requirement for requiring “natural drainage systems” in this development design. This is an obvious fault. Shoreline is well known for designing such systems in municipal projects, such as the Aurora Phase II and III, and the Natural drainage street design in Briarcrest neighborhood along 17th Ave NE. The developer could easily find options for doing this to benefit groundwater infiltration and the downstream area of Twin Ponds Park and the

immediate health and quality of the landscaping and enjoyment of the residents. This is actually recommended in the Shoreline Comprehensive Plan and the Sustainability Strategy. We request that this be required by the Hearing Examiner to mitigate the impacts of destruction of this valuable Urban Forest ecosystem.

We appreciate the time being taken by the Hearing Examiner to listen to our opinion and those of other citizens who care about our community.

Respectfully Submitted,

Janet Way, Chair

Shoreline Preservation Society

Kendyl Hardy

From: stsoming <stsoming@frontier.com>
Sent: Monday, January 17, 2022 4:09 PM
To: Hearing Examiner
Cc: Janet Way; Kathleen Russell
Subject: [EXTERNAL] 1/18/22 Public Hearing of Appl. No. PLN20-0139

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To Hearing Examiner Clerk,

Pursuant to the publication of the Notice of Public Hearing in the "Seattle Times" for the above-mentioned application, I submit the following written comments:

My name is Susanne Tsoming. I am a Shoreline resident and a member of the Tree Preservation Code Team and Save Shoreline Trees. I support Shoreline Preservation Society's 1/14/22 letter, particularly its remarks, "the decision by staff to allow the extreme cutting of a valuable urban forest ecosystem with inadequate replacement trees required is very destructive to the local ecosystem and community values expressed in the Shoreline Comprehensive Plan." (para. 3, pg. 2).

The city planner, Ms. Cate Lee properly reviewed the Project and found it technically in compliance with City Code requirements. Yet, in the middle of climate change, it is counter-intuitive to remove a grove of 67 trees. Climate change should change our priorities. Everyone, including developers like Pulte Homes of Washington, need to revise their approach about the way we do things. Retaining urban tree canopies should be one of those priorities. By reducing the number of buildings on the project site and integrating more of the existing mature trees into the building site plan, Pulte's "5 Degrees" project could become an example of how thoughtful design can lead to developments that respect the environment and public welfare.

Thank you,

Susanne Tsoming

Kendyl Hardy

From: Sandy Shettler <SSHETTLER@msn.com>
Sent: Monday, January 17, 2022 4:49 PM
To: Hearing Examiner
Subject: [EXTERNAL] Comment on Pulte Homes Application No.: PLN20-0139

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Shoreline Hearing Examiner:

Pulte Homes, a private, for-profit national developer, should not be allowed to cut down the forest grove for a townhouse development at 147th and Meridian, and instead should be asked to provide a plan which incorporates these trees.

This grove of mature conifers is a community treasure. Forests are resilient because they are themselves a community--the trees shelter each other from winds and the interlocking root mass provides a strong base which supports their height. Removing large numbers of them leave the few that remain vulnerable, particularly given our hotter/drier summers and stronger storms due to climate change. Within just a few years we will lose the few that remain, along with the many benefits they provide, including stormwater absorption, carbon sequestration, summer cooling, wildlife habitat, and joy!

I am familiar with Pulte. They are an experienced national development company and are well able to meet their townhome objective with a more creative approach which incorporates this forest.

Please send them back to the drawing board to provide a plan which respects this community resource, rather than exploiting it.

Sincerely,

Sandy Shettler
206-412-2333

Kendyl Hardy

From: H.R.H Bethany Williamson <petewil@msn.com>
Sent: Monday, January 17, 2022 5:11 PM
To: Hearing Examiner
Subject: [EXTERNAL] Comment on Pulte Homes Application No.: PLN20-0139

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Shoreline Hearing Examiner:

Pulte Homes, a private, for-profit national developer, should not be allowed to cut down the forest grove for a townhouse development at 147th and Meridian, and instead should be asked to provide a plan which incorporates these trees.

This grove of mature conifers is a community treasure. Forests are resilient because they are themselves a community--the trees shelter each other from winds and the interlocking root mass provides a strong base which supports their height. Removing large numbers of them leave the few that remain vulnerable, particularly given our hotter/drier summers and stronger storms due to climate change. Within just a few years we will lose the few that remain, along with the many benefits they provide, including stormwater absorption, carbon sequestration, summer cooling, wildlife habitat, and joy!

I am familiar with Pulte. They are an experienced national development company and are well able to meet their townhome objective with a more creative approach which incorporates this forest.

Please send them back to the drawing board to provide a plan which respects this community resource, rather than exploiting it.

Sincerely,

Bethany Williamson

425 922 0701

Sent from my iPhone

Kendyl Hardy

From: Sam Beatt <smbeatt@gmail.com>
Sent: Monday, January 17, 2022 7:36 PM
To: Hearing Examiner
Subject: [EXTERNAL] Public Comment: Pulte Homes of Washington, Inc, Application No.: PLN20-0139

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hearing Examiner,

Thank you for offering public comment on this project. I am concerned about this project due to the extreme loss of important tree canopy in an area that has seen significant tree loss as the Light Rail moves in. Housing is a major issue here in the Puget Sound area, however development at the cost of environmental degradation and comfortable community is not ever worth it.

According to the arborist report, this large grove, including 86 significant trees, will be cut down to 19 significant trees, with the rest of the site to be cleared.

- The SEPA checklist indicates that other than songbirds there is no wildlife in this mature landscape of 2.44 acres. This defies credulity, and we appreciate the City reviewer noting that the habitat is conducive to the presence of the little brown bat and that the location is inside the Pacific flyway. In addition, at the very least there are sure to be Steller's jays and a variety of woodpeckers. Raptors, either nesting or transient, are a virtual certainty, and so are squirrels and Norway rats.
- This action comes on the heels of the Shoreline area's loss of 5,000 trees for the construction of the Sound Transit line. In addition to that, mature trees are constantly falling way to hardscape for added density. Balance is needed.

This project will also affect traffic in the area, and add to an already congested area.

Thank you for your consideration.

-Sam Beatt

Kendyl Hardy

From: Thornton Creek Alliance <thorntoncreekalliance@gmail.com>
Sent: Tuesday, January 18, 2022 8:00 AM
To: Hearing Examiner
Subject: [EXTERNAL] Public Comment: Pulte Homes of Washington, Inc, Application No.: PLN20-0139

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Via Email Only

Thornton Creek Alliance

Post Office Box 25690

Seattle, Washington 98165-1190

Hearing Examiner

City of Shoreline

17500 Midvale Ave N

Shoreline, WA 98155

Dear Hearing Examiner:

Thank you for the opportunity to comment on this project which is situated in the curve created by the riparian corridor of Thornton Creek as it flows through Twin Ponds Park and then south along the west side of the freeway. Because of the on-site tree grove creating a supporting and nearly contiguous habitat for the park and creek, we earnestly request that you scale back the project and save the trees. This urban forest is important to the Thornton Creek watershed and Twin Ponds ecosystem, but according to the arborist report, this large grove, including 86 significant trees, will be cut down to 19 significant trees, with the rest of the site to be cleared.

- The SEPA checklist indicates that other than songbirds there is no wildlife in this mature landscape of 2.44 acres. This defies credulity, and we appreciate the City reviewer noting that the habitat is conducive to the presence of the little brown bat and that the location is inside the Pacific flyway. In addition, at the very least

there are sure to be Steller's jays and a variety of woodpeckers. Raptors, either nesting or transiting, are a virtual certainty, and so are squirrels and Norway rats.

- This action comes on the heels of the Shoreline area loss 5,000 trees for the construction of the Sound Transit line.

With this continuous reduction in tree cover the City's commitments to carbon sequestration and mitigating the effects of climate change will be harder to accomplish. Keeping forest is crucial to maintaining any kind of biological diversity. People benefit too from the cooling shade, the retention of stormwater, and the cleansing of the air we breathe.

The documents indicate stormwater run-off will be detained in storage vaults. We would like to know what the maintenance schedule is, and who will be responsible for ensuring that it is followed.

Please add Thornton Creek Alliance as a party of record. Thank you for your consideration.

Sincerely,

Dan Keefe,

President

--

www.thornton-creek-alliance.org

www.facebook.com/Thornton.Creek.Alliance

Kendyl Hardy

From: Gordon Dass Adams <gordondass@yahoo.com>
Sent: Tuesday, January 18, 2022 10:54 AM
To: Hearing Examiner
Subject: [EXTERNAL] PLN20-0139,

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The loss of this many mature trees will be a blow to Shoreline's livability - shade, coolness, wildlife — thrown aside for overly dense development.

Gordon Dass Adams

Gordon Dass Adams 206-227-3864
Seattle gordondass@yahoo.com

Kendyl Hardy

From: Nancy Morris <taweyahnan@gmail.com>
Sent: Tuesday, January 18, 2022 12:38 PM
To: Hearing Examiner
Cc: Rachael Markle; Catherine Lee
Subject: [EXTERNAL] Addendum to previous comment on Pulte Homes Site, PLN20-0139 (Pulte 5 Degrees)
Attachments: DEV20-1621 Tree Replacement Exception final.pdf
Importance: High

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Attention Hearing Examiner:

cc: Rachael Markle, Cate Lee

RE: Addendum to previous comment on Pulte Homes Site, PLN20-0139 including one attachment

As the Pulte Homes Site, PLN20-0139 is still not built, the City of Shoreline Planning Department and the Pulte Home Site developers must look to new standards of design now implemented more and more around the world that preserves trees and green space as much as possible, due to the impending climate change impacts we as a society are now experiencing. We can't continue to develop land in the slash-and-clear manner going forward and destroy precious habitat, not only for future residents of Shoreline, but also for our Northwest bird species that will be losing foraging and nesting habitat with this horrendous loss of trees.

Design Buildings to Preserve Trees

City of Bellevue, WA codes mandate designing buildings and developments around existing mature trees in the landscape (included by reference: ***Trees and Tree Retention in City of Bellevue, WA*** <https://bellevuewa.gov/city-government/departments/development/zoning-and-land-use/zoning-requirements/trees>). Shoreline is far from this goal, especially given the incredible loss of landscape for the Pulte development site. And Shoreline's practice of planting young deciduous trees to

replace the loss of our mature conifers, is a false solution. Young saplings never in even 20 years sequester the carbon dioxide that is done NOW by our mature conifer trees. Young saplings do nothing for our resident and migratory bird species as well. City of Shoreline and developers need to join other jurisdictions who are now more aware about the value and importance of their trees and the contiguous tree canopy. Designing with this in mind is the way of the future.

Concern about Bird Nesting

I also have significant reservations about the letter from Director Markle to the applicant Pulte Homes "Dev 20-1621 [PLN20-0139] Tree Replacement Exception" on November 10, 2021, page 3, bullet 5 (attached PDF below): *"Trees shall not be removed during bird nesting season, which stretches from the last week of February to the first week of August, unless the project ecologist is onsite to facilitate bird nest relocation. If a young bird is encountered and is unable to fly, the project ecologist shall contact the approved rehabilitation facility, PAWS in Lynnwood, WA."*

Director Markle's remarks may be well intended and a considered first step in reducing bird mortality, however I don't believe it is feasible to relocate bird nests based on known bird behavior. It is unlikely that bird nests in these significant conifers can even be spotted by a project ecologist or relocated in a manner to save the birds. And does "the first week of August" mean the end of first week as August 8, or does it mean August 1, the beginning of the week? The best solution is to wait until September 1.

I will add that delaying tree removal from the end of February through the beginning of August (provided this is specified as August 15), goes a long way to protect breeding and fledging birds, but better protection could be provided during this critical time if tree cutting were delayed from Feb 1-August 31. This offers protection to birds during courtship and nest building in late winter, and helps protect birds that rear multiple broods late into the season.

In an email exchange, Josh Morris, Urban Conservation Manager at Seattle Audubon, suggested the following language: "to protect breeding and fledging birds, trees should not be removed between February 1-August 31. If juvenile birds that are unable to fly are encountered during project activities, response shall follow guidance from PAWS at <https://www.paws.org/wp-content/uploads/2019/11/wild-baby-bird.pdf>. If any injured

birds are detected during project activities, the project ecologist shall contact the project ecologist. All birds injured or dead from any cause, project-related or otherwise, that are detected during project activities shall be reported at <https://dBird.org>."

I urge Director Markle to review best practices as put forth by organizations such as Seattle Audubon and Seward Park Audubon Center who have bird scientists and ecologists on staff. To reiterate, the recommended time period should be extended to September 1.

I so hope the Shoreline City staff and the Hearing Examiner fully consider already important information submitted by a number of Shoreline citizens and organizations to see what can be done to save more of our tall significant conifer trees before they are lost forever at the Pulte Homes site, PLN20-0139. If people truly want to save and preserve trees to help mitigate climate change emergencies and preserve this natural resource for future residents of Shoreline and our previous wildlife, then new project design should be considered to enhance the livability of our communities. I urge you to deny the Pulte 5 Degree project as currently designed until more thought is given to create a sustainable development at this area. The redesigned "Pulte 5 Degree" project built with many more mature trees intact could be an inspiration for other cities to show such projects are possible given what we know about the climate emergencies we now face.

References listed below are to be included as part of my comment on the Pulte Homes of Washington, Inc, Application No.: PLN20-0139 (Pulte "5 Degrees").

Sincerely,

Nancy Morris
Resident of Shoreline, WA

References:

"Tree and Tree Retention in City of Bellevue" <https://bellevuewa.gov/city-government/departments/development/zoning-and-land-use/zoning-requirements/trees> . Bellevue codes mandate designing building around existing mature trees in the landscape.

“Urban Forests and Birds That Need Them” | Seattle Audubon Program Meeting
July 15, 2021 <https://vimeo.com/575918179>

“Amid climate crisis, a proposal to save Washington’s state forests”
<https://www.seattletimes.com/seattle-news/environment/amid-climate-crisis-a-proposal-to-save-washington-state-forests-for-carbon-storage-not-logging/> by Lynda Mapes, March 21, 2021. . . . “Hilary Franz, state commissioner of public lands, pulled back nearly 40 acres with most of the biggest, oldest trees from the sale. Now, this timber sale named Smuggler (sales are often whimsically named by state foresters) also is swinging open a door to a broader conversation in Washington, home to the second largest lumber producer in the nation, to rethink the value of trees on state lands not as logs, but as trees to help address the twin crises of species extinction and climate warming.” . . .

“What Technology Could Reduce Heat Deaths? TREES.”
<https://www.nytimes.com/2021/07/02/climate/trees-cities-heat-waves.html>, from the New York Times July 2, 2021

“Learn About Heat Islands,” EPA report <https://www.epa.gov/heatislands/learn-about-heat-islands>

“Reduce Urban Heat Island Effect,” EPA Report - <https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect>).

“2021 heat wave is now the deadliest weather-related event in Washington history” <https://www.kuow.org/stories/heat-wave-death-toll-in-washington-state-jumps-to-112-people> 112 people died during the most serious heat wave in our state end of June 2021.

“Florida is ditching palm trees to fight the climate crisis”https://www.cnn.com/2021/10/23/weather/weather-trees-adapt-climate-change/index.html?utm_medium=social&utm_source=fbCNN&utm_content=2021-10-23T19%3A00%3A13&utm_term=link . . . “Scientists are working on solutions to capture and safely contain atmospheric carbon. One approach is called “terrestrial sequestration” -- which is essentially planting trees. A tree absorbs carbon during photosynthesis and stores it for the life of the tree” . . .

UN Climate Statement / 09 Aug, 2021, “UN Climate Change Welcomes IPCC’s Summary for Policy Makers on the Physical Science Basis of Climate Change” <https://unfccc.int/news/un-climate-change-welcomes-ipcc-s-summary-for-policy-makers-on-the-physical-science-basis-of-climate>

The 26th “Conference of the Parties” (COP26) and represents a gathering of all the countries signed on to the U.N. Framework Convention on **COP26: What is it and why is it happening in Glasgow in 2021?** Climate Change and the Paris Climate Agreement. <https://www.bbc.co.uk/newsround/51372486>

“Climate change has destabilized the Earth’s poles, putting the rest of the planet in peril. New research shows how rising temperatures have irreversibly altered both the Arctic and Antarctic. Ripple effects will be felt around the globe.” <https://www.washingtonpost.com/climate-environment/2021/12/14/climate-change-arctic-antarctic-poles/>

**SHORELINE
CITY COUNCIL**

Will Hall
Mayor
Keith Scully
Deputy Mayor
Susan Chang
Doris McConnell
Keith A. McGlashan
Chris Roberts
Betsy Robertson

November 10, 2021

Jim Sprott
Pulte Homes of Washington, Inc.
jim.sprott@pulethgroup.com

RE: DEV20-1621 (2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N) - Tree Replacement Exception Request

Dear Mr. Sprott,

The City of Shoreline Planning & Community Development Department has received and reviewed your request to reduce the number of required replacement trees from 139 replacement trees to 110 replacement trees.

The site contains 86 significant sized trees, 67 of which are proposed for removal, 19 of which are proposed for retention, 16 of which are partially exempt from retention and replacement requirements, resulting in a retention percentage of 27 percent ($19 / 70 = 0.271$). The code required minimum retention is 20 percent, or 14 trees ($70 \times 0.20 = 14$).

A reduction to the number of replacement trees requires an exception request to the Planning Director addressing the criteria in accordance with SMC 20.50.360(C)(b)(i-iv):

- i. There are special circumstances related to the size, shape, topography, location or surroundings of the subject property; and
- ii. Strict compliance with the provisions of this Code may jeopardize reasonable use of property; and
- iii. Proposed vegetation removal, replacement, and any mitigation measures are consistent with the purpose and intent of the regulations; and
- iv. The granting of the exception or standard reduction will not be detrimental to the public welfare or injurious to other property in the vicinity.

Note: The cited code section was amended by [Ordinance No. 907](#), effective December 15, 2020, but appears in this letter as it did when this application

was vested on October 19, 2020.

The reduction of required replacement trees is requested primarily due to retention of additional significant sized trees beyond the minimum requirement; off-site tree canopy that extends onsite which limits the ability to replant new trees within the existing canopy; and providing the level of density desired in the MUR-35' zoning district. Planting the required replacement trees in the critical root zones of trees to be retained, both onsite and offsite, would disturb established root systems. Planting the required replacement trees on the remaining part of the site would lead to overcrowding and competition for water and sunlight.

The proposed landscape plan incorporates 110 out of the 139 required replacement trees. The area needed to plant an additional 29 trees onsite would require between 5,000 and 20,000 square feet. The 5,000 square feet is based on the canopy dimensions of a small tree (serviceberry) and the 20,000 square feet is based on the canopy dimensions of a medium tree (mature hedge maple). This would reduce the density of the proposed project. The average unit size in this proposal is 640 square feet at the ground level, which would mean a reduction in unit count of eight (8) to thirty-one (31), meaning the density would decrease from 70 units to 62 units at the high end to 39 units at the low end. The code required minimum density for this site is thirty (30) units. The initial proposal for this project was 72 units, which was reduced to 70 units through the revision process to provide more adequate tree protection for trees to be retained. The required spacing of trees from buildings, each other, and driveways does not allow for full compliance while also allowing for the proposed and remaining trees to grow in a healthy manner.

The Planning and Community Development Department finds that the applicant has sufficiently demonstrated that special circumstances exist due to the previously mentioned retained significant onsite trees and offsite trees with canopy extending onsite. The granting of a tree replacement reduction will not be detrimental to the public welfare because it will maximize tree canopy coverage over the long term by allowing replacement trees the space to maximize photosynthetic capacity and develop good structure.

The request for the exception to allow for a reduction to the number of replacement trees meets the criteria of SMC 20.50.360(C)(b)(i-iv) and shall be granted on the following conditions, which will be listed as conditions of permit approval for DEV20-1621, related to onsite trees:

- Tree protection shall be in place at time of pre-construction meeting as shown on approved plans. Tree protection shall remain in place until final inspection and shall not be removed except as outlined in the approved arborist report.
- Pre-construction meeting required. Project arborist shall attend pre-construction meeting with city building inspector and project general contractor.

- Project arborist shall be onsite for removal of hardscape adjacent to tree protection area on the southeast corner of the site.
- Applicant shall provide city planner with monitoring reports (electronic, PDF file) from project arborist on retained trees as follows:
 - Start of construction (post-demolition, pre-site grading work)
 - Beginning of dry season (May), annually if construction spans more than one year
 - End of dry season (September), annually if construction spans more than one year
 - End of site grading and utility installation
- Trees shall not be removed during bird nesting season, which stretches from the last week of February to the first week of August, unless the project ecologist is onsite to facilitate bird nest relocation. If a young bird is encountered and is unable to fly, the project ecologist shall contact the approved rehabilitation facility, PAWS in Lynnwood, WA.

The tree replacements shall be planted as shown on Sheet L1.0 Landscape Layout Plan, dated 08/19/2021. A tree replacement performance bond is required prior to permit approval, and a 3-year maintenance bond is required prior to final inspection.

Should you have any questions, please contact Cate Lee, Senior Planner, at 206-801-2557, or via e-mail at clee@shorelinewa.gov.

Sincerely,



Rachael Markle
Planning Director
Planning & Community Development Department
206-801-2531

Attachments: Arborist Report with Reduction Request, Sheet L1.0 Landscape Layout Plan

c.c.: Ben Wolk, Board & Vellum, ben@boardandvellum.com
Yi-Chun Lin, Board & Vellum, yi-chun@boardandvellum.com

January 18, 2022

Director Rachel Markle
Office of Planning and Community Development
17500 Midvale Ave N
Shoreline, WA 98133
Via email to rmarkle@shorelinewa.gov

RE: Protecting Nesting Birds from Tree Removal: PLN20-0139 (Pulte 5 Degrees)

Dear Director Markle,

Greetings from Seattle Audubon. We are an urban conservation organization based in the Wedgewood neighborhood of Seattle, serving an area from Shoreline to Des Moines and east to Mercer Island. We are supported by more than 4,000 local members who care deeply about protecting birds and their habitats.

We write to thank you for considering nesting birds during tree removal and to offer a suggestion that could protect more birds during this critical part of their life cycle.

Before our specific comment, a general thought about tree loss. Our urban forests will play an important role in how we mitigate and adapt to climate change. We know that we cannot protect every tree as our cities grow and densify, but we also know that every tree we lose weakens our cities' ability to absorb climate impacts from extreme heat, intense precipitation, and wildfire smoke. Decisions to remove trees should be judicious. Development should maximize tree retention. And where we must lose trees, we must then replace them with as many as possible, as quickly as possible, and as equitably as possible.

Our specific comment relates to your letter dated November 10, 2021 to Jim Sprott of Pulte Homes of Washington, Inc, regarding a request to reduce the number of replacement trees. Passages on page two and three read:

The request for the exception to allow for a reduction to the number of replacement trees meets the criteria of SMC 20.50.360(C)(b)(i-iv) and shall be granted on the following conditions, which will be listed as conditions of permit approval for DEV20-1621, related to onsite trees:

- ...
- *Trees shall not be removed during bird nesting season, which stretches from the last week of February to the first week of August, unless the project ecologist is onsite to facilitate bird nest relocation. If a young bird is encountered and is unable to fly, the project ecologist shall contact the approved rehabilitation facility, PAWS in Lynnwood, WA.*

Director Markle
Shoreline Office of Planning and Community Development
RE: Comments on PLN20-0139
January 18, 2022
Pg. 2

First, thank you for considering the needs of birds during the development process. We commend you for this and hope to see considerations for a wide array of urban biodiversity become mainstream in development decisions, land use policy, and urban planning.

Second, we respectfully ask you to consider an alternate phrasing for the condition on tree removal during nesting season. We propose:

To protect breeding and fledging birds, trees shall not be removed between February 1-August 31. If juvenile birds that are unable to fly are encountered during project activities, response shall follow guidance from PAWS at <https://www.paws.org/wp-content/uploads/2019/11/wild-baby-bird.pdf>. If any injured birds are detected during project activities, the project ecologist shall contact PAWS. All birds injured or dead from any cause, project-related or otherwise, that are detected during project activities shall be reported at <https://dBird.org>."

Our rationale:

1. *"To protect breeding and fledging birds, trees shall not be removed between February 1-August 31."*
Breeding is a complex set of behaviors that occurs over months, from courtship and pair formation to nest building, egg laying, incubation, and rearing the young brood. Each species is on its own timeline. Bald Eagles, for example, a year-round resident in our area, begin courting and nest building in January. Migratory birds, like Swainson's Thrush, must travel from Central or South America and may not begin nest building until June. Similarly, each species fledges at a different rate, and some species may attempt to rear two or more broods in a season with sensitive young birds present into August. Given this, best protection can be given to birds during critical reproductive and fledging periods by limiting tree removal from February 1-August 31.

We recommend removing the exemption on tree removal during nesting season if a project ecologist is onsite to facilitate bird nest relocation. It is not strictly legal to relocate bird nests without a permit under the Migratory Bird Treaty Act, and, more practically, bird nests are unlikely to be detected without searching closely up in the trees, which seems unlikely to occur. Best to assume nests are present and wait until September.

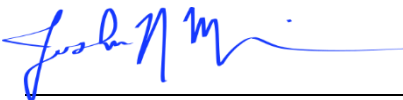
2. *"If juvenile birds that are unable to fly are encountered during project activities, response shall follow guidance from PAWS at <https://www.paws.org/wp-content/uploads/2019/11/wild-baby-bird.pdf>."*
Sometimes the best thing to do with a juvenile bird that cannot fly is to leave it alone. PAWS has a process for determining when to intervene or call for further guidance.
3. *"If any injured birds are detected during project activities, the project ecologist shall contact PAWS."*
Injured birds can often be rehabilitated. Always call a wildlife rehabber for guidance.
4. *"All birds injured or dead from any cause, project-related or otherwise, that are detected during project activities shall be reported at <https://dBird.org>."* dBird.org is an online platform for reporting dead and injured birds. Conservationists and scientists across the country use the tool to track causes of bird

Director Markle
Shoreline Office of Planning and Community Development
RE: Comments on PLN20-0139
January 18, 2022
Pg. 3

mortality and injury. Requiring developers to report incidents of dead and injured birds can help us understand and prevent some human-related causes of bird death.

Thank you for your consideration. If Seattle Audubon can be a resource to you or your office, please do not hesitate to email or call.

Sincerely,



Joshua Morris
Urban Conservation Manager

Cc: Cate Lee, Senior Planner | clee@shoreline.gov

Kendyl Hardy

From: Isis Charest <isis.charest@gmail.com>
Sent: Tuesday, January 18, 2022 5:36 PM
To: Hearing Examiner; save-shoreline-trees@googlegroups.org
Subject: [EXTERNAL] ordinance #953

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I feel deeply saddened that the City of Shoreline Planning Commission thinks it has to choose between creating more housing and supporting the city of Shoreline environmentally.
The block between 147th and 148th off Meridian has a lot of significant Trees and yet ordinance 953 would allow all of them to be cut down. This is so wrong environmentally.

The rows of townhomes being built on 145th are a disgrace to our current environment. One with any empathy can feel the death of the land these rows of homes sit on. How does that affect the people living in them? Who cares?

Most of us know that we have already entered a time of extreme weather conditions and Trees are our only friend to help curb that extreme. But sadly here we/you are choosing ... as if they are really not necessary ... as if there is nothing to worry about.

We are speaking of an area within hearing distance to the freeway where DOT already cut down over 5000 trees. What do you think is going to absorb all that extreme amount of carbon and other pollutants? What will absorb all the traffic noise?

But of course wealthier citizens will be able to afford living in an area where there are abundant Trees. The available housing for the less wealthy of us are most often devoid of nature, next to the loudest traffic and the most pollution. It is the penalty of being poor and the gift of being in control.

Thank you for seeing the Benefits of Trees now ... not 20 years from now.
Isis Charest

Kendyl Hardy

From: Catherine Lee
Sent: Monday, January 3, 2022 9:51 AM
To: Hearing Examiner
Subject: FW: [EXTERNAL] Jan 18 Public Hearing: PLN20-0139 (Pulte 5 Degrees)
Attachments: PLN20-0139 - Notice of PH - Post w Map.pdf; IMG_9743.jpeg; IMG_9742.jpeg

FYI—this got stuck in my quarantine email and may have also got stuck in yours so am forwarding on.

From: dmoehring@consultant.com <dmoehring@consultant.com>
Sent: Sunday, January 2, 2022 8:35 AM
To: Hearing Examiner <hearingex@shorelinewa.gov>
Cc: Treepac <Treepac@groups.outlook.com>; Catherine Lee <clee@shorelinewa.gov>
Subject: [EXTERNAL] Jan 18 Public Hearing: PLN20-0139 (Pulte 5 Degrees)

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Re: 2123 N 148th St and surrounding area within the multifamily development of Shoreline,
WA 98133

Dear Hearing Examiner,

The proposed development before you either can be a model for sustainable design considering both density and urban forest, or it may ignore the site plan options to maximize the retention of existing significant trees at the cost to the regional environment and natural habitats.

We all have a right to property capitalization. We all have a greater responsibility, however, to our future generations to smartly design with groves of large trees included. Please visit this heavily wooded site prior to the public hearing.

This proposal, as you may see, does not take any environmental responsibility needed for sustainable growth, and purely seeks to maximize its capital gain. Your authority must be applied to this matter.

Thank you,
David Moehring AIA
TREPAC

From: Catherine Lee <clee@shorelinewa.gov>
Date: December 29, 2021 at 9:46:20 AM PST
To: Catherine Lee <clee@shorelinewa.gov>
Subject: Notice of Public Hearing: PLN20-0139 (Pulte 5 Degrees)

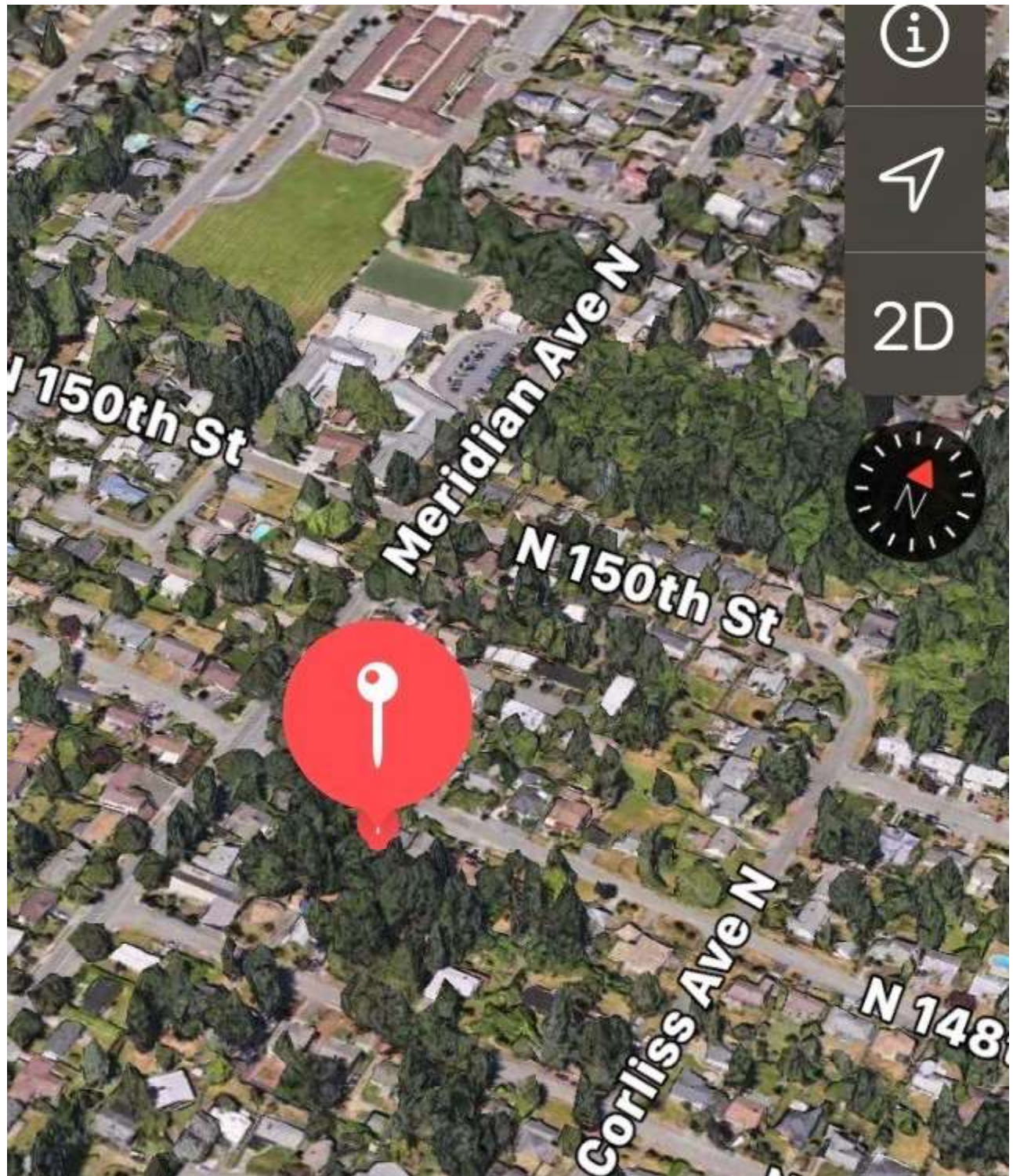
Hello,

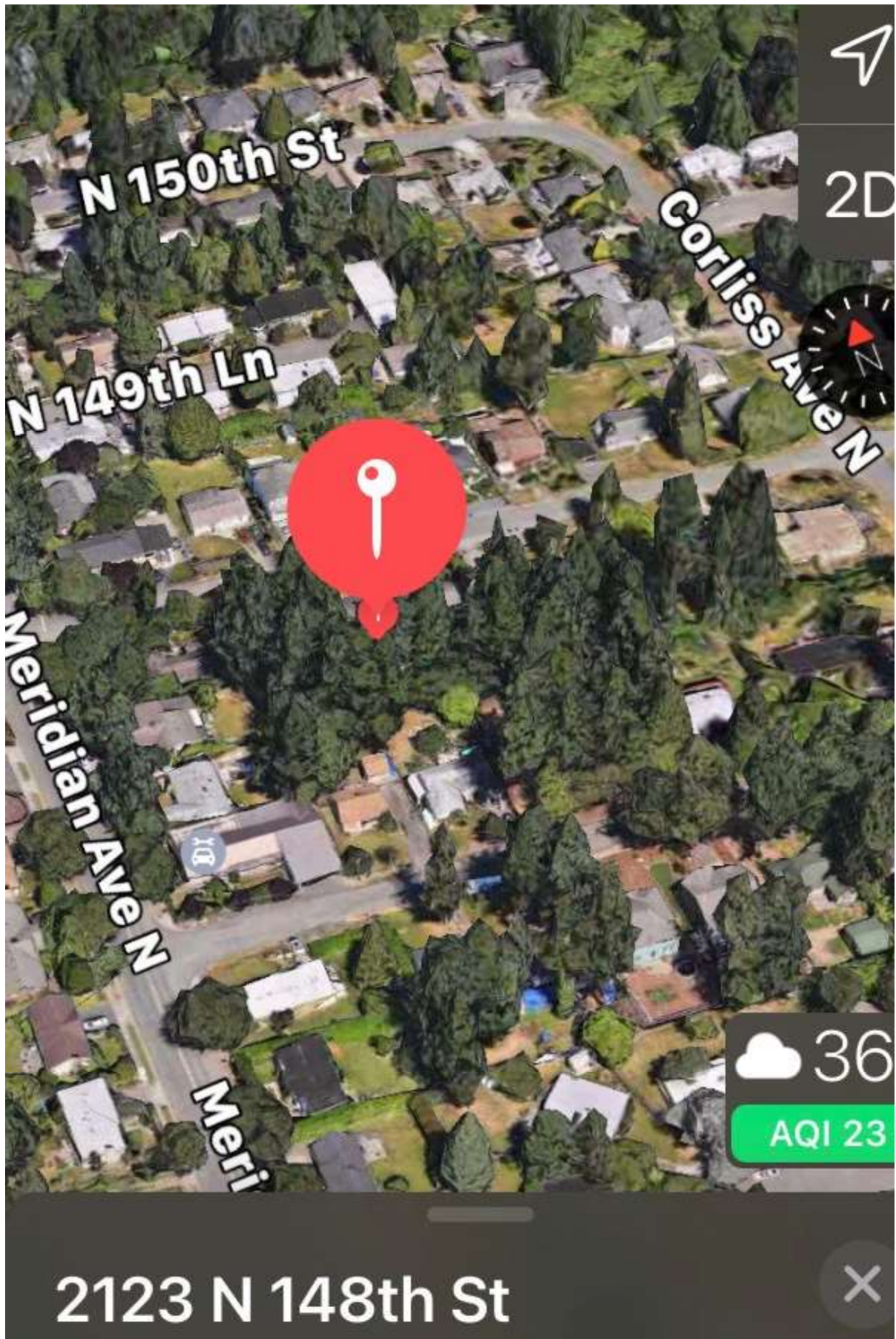
If you are receiving this email, you provided comment during the notice of application of this preliminary formal subdivision. This application is scheduled to go to Hearing Examiner for a Public Hearing on **January 18, 2022 at 7:00 PM** via Zoom Webinar.

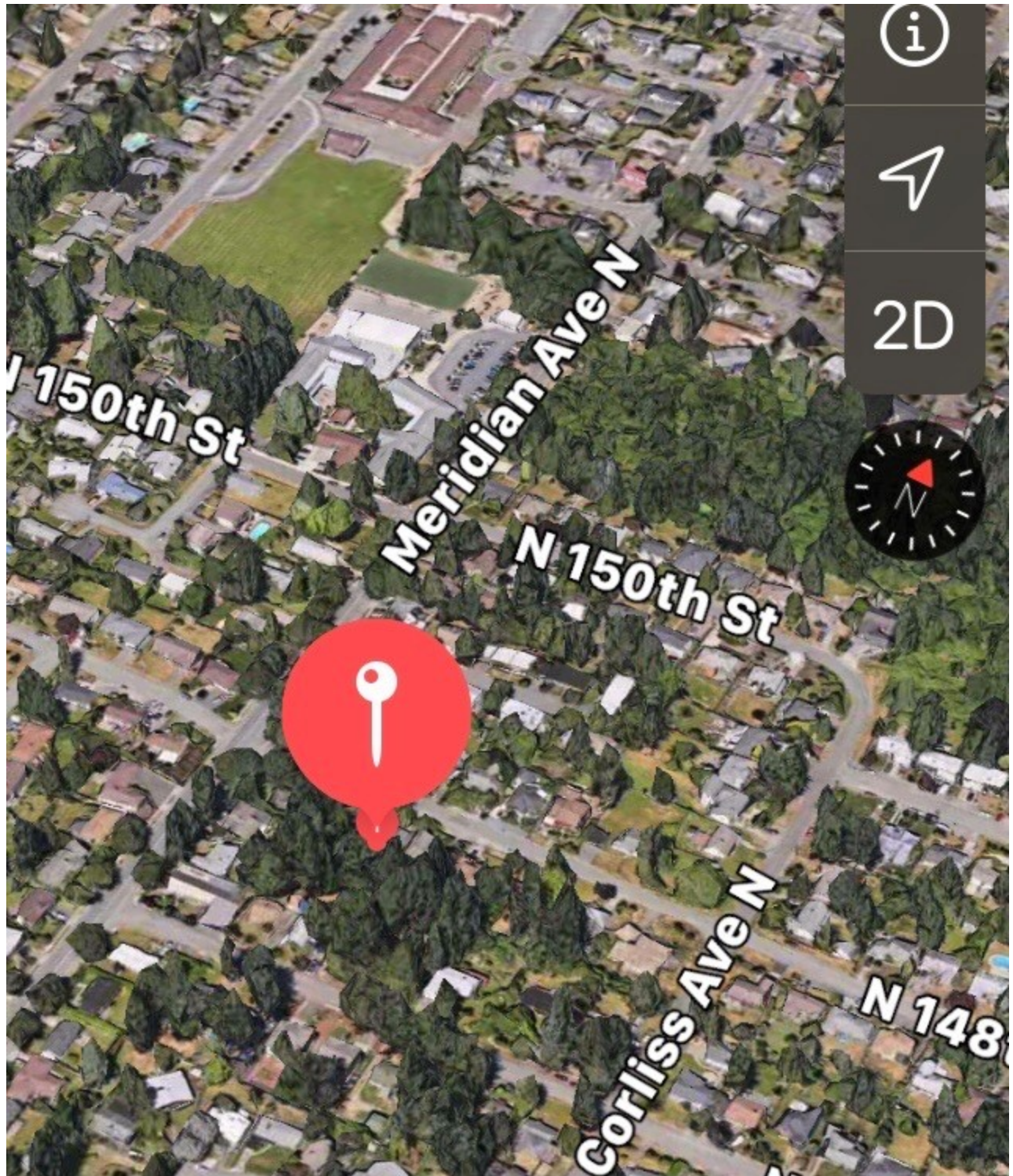
Please see attached notice for meeting details, including how to provide public comment.

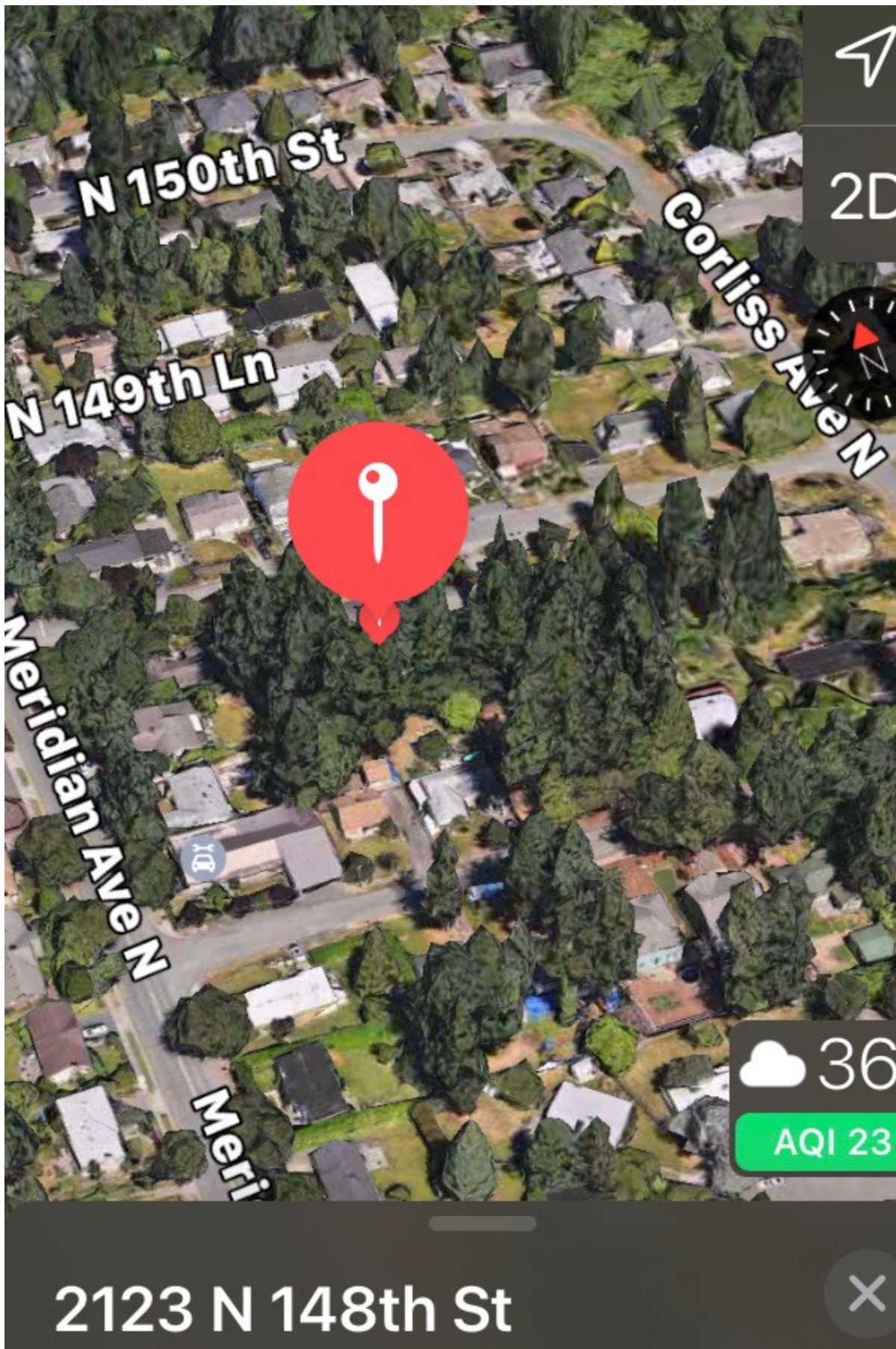
If you are also a property owner within 500 feet of the subject site you will receive a paper mail notice through the USPS in the coming week (notice has to occur 15 days prior to the hearing, so by January 3, 2022).

Best Regards,









Kendyl Hardy

From: ericsi@seanet.com
Sent: Tuesday, January 18, 2022 6:33 PM
To: Hearing Examiner
Subject: [EXTERNAL] Public Hearing 01-18-2022

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I am writing to submit the following comment to the public hearing regarding application number PLN20-0139:

There was a previous public comment period about a year ago. From the response I got when I submitted a comment, it was very clear that the "comment period" was just a formality, and that the city government had no interest in actually hearing from the public. Therefore, I am quite confident that this so-called "hearing" is also nothing but theater, and that the actual decisions have already been made in favor of the developers.

Building a 72-unit complex is a massive change that will have a huge negative impact on this neighborhood. Traffic on Meridian is already quite bad at times, but now it's going to get MUCH worse, and parking will be worse too.

When this complex is finished, I would not be surprised if traffic is backed up so much that I won't be able to get onto Meridian at all. Once this project is finished, it seems very likely that it will open the floodgates for further projects, until a once-beautiful neighborhood has been completely destroyed and turned into an area as dense as Capitol Hill.

I realize that the developers almost always win and ordinary citizens have almost no power, but for what little it's worth, please register my vehement disapproval of this project and of a city government that clearly does not represent me.

sincerely,
Eric Sieverling

Kendyl Hardy

From: Randall Olsen <ROlsen@Cairncross.com>
Sent: Tuesday, January 18, 2022 3:26 PM
To: Hearing Examiner
Cc: Kendyl Hardy; Catherine Lee
Subject: [EXTERNAL] Applicant memo re Jan. 18 Subdivision Hearing , City of Shoreline, PLN20-0139
Attachments: Memorandum from R. Olsen to Hrg. Ex. Reeves re Subdivision PLN20-0139 (Pulte 5 Degrees Townhomes) (04488258).PDF

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Examiner,

This firm represents Pulte Homes of Washington with regard to tonight's subdivision hearing (PLN20-013). Attached is a memorandum requesting certain documents be added to the record and certain changes be made to the conditions of approval for the project.

I will request these changes and can explain them in more detail at the hearing, but wanted to get the memorandum to you in advance.

I've copied Cate Lee, the planner on this project, who I have been discussing these items with over the past few days.

Thank you,
 Randall

Randall Olsen

Attorney

Pronouns: he/him/his

CH& | [Cairncross & Hempelmann](#)

524 Second Avenue | Suite 500 | Seattle, WA 98104-2323

d: 206-254-4418 | f: 206-587-2308

ROlsen@cairncross.com | cairncross.com | [Randall's Profile](#)

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MEMORANDUM

To: Hearing Examiner Andrew Reeves

From: Randall P. Olsen of Cairncross & Hempelmann P.S., Attorneys for Pulte Homes of Washington

Re: Subdivision PLN20-0139 (Pulte 5 Degrees Townhomes)

Date: January 18, 2022

I am submitting this memorandum on behalf of Pulte Homes of Washington (“**Pulte**”), the applicant for Subdivision PLN20-0139 (“**Subdivision**”) in the City of Shoreline, Washington. Pulte submits this memorandum to request certain additions to the record and certain changes to the recommended conditions of approval for the reasons stated below. I provided a draft of this memorandum to City of Shoreline Planner Catherin Lee on January 14, 2022 and this updated version on January 18, 2022.

Pulte asks the Hearing Examiner to **add the following attached documents** to the record as Exhibits for the reasons described below.

Attachment #	Description	Explanation
A	This is a screen capture of the City’s permitting website showing approval of a requested deviation for intersection landing (Permit #PIN21-1402)	The plans in the record show the work to be completed in compliance with the approved deviation but the record does not include the deviation approval, so we ask that the approval be added to the record.
B	This is a screen capture of the City’s permitting website showing approval of a requested deviation for drop structures (Permit #PIN21-1403)	The plans in the record show the work to be completed in compliance with the approved deviation but the record does not include the deviation approval, so we ask that the approval be added to the record.
C	Maximum Extent Feasible (MEF) documentation regarding curb ramps and landing and Technical Memorandum regarding Deviation from Engineering Standard EDM Section 13.7.C.	These documents provide the background and bases for the deviation approvals described in Attachments A and B above.

D	January 14, 2022 email from Brent Proffitt to Catherine Lee confirming conditional approval of subdivision from City's wastewater division	Exhibit 17 contains the project review summaries for several divisions within the City, including the wastewater division. Under the "wastewater" review section in Exhibit 17, the reviewer, Brent Proffitt, has listed the conditions of approval but the "status" column is blank. The referenced Attachment email confirms that the status has been updated to reflect "conditional approval."
E	Landscape Plans	Exhibit 13 includes the Planning Director's approval of the tree replacement plan for the project but does not include the full landscape plan, which provides greater detail regarding the vegetation and landscaping improvements for the site.

Pulte asks that the Examiner's Decision on the Subdivision **adopt the following language, which deviates as shown from the recommendation in the Staff Report.**

Staff Report reference #	Current language	Requested language	Explanation
Sec. 8.4	Along N 148th Street, from the centerline of the street, provide a 10-foot travel lane, 7-foot parking lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. A reduced throat of 24-feet is required on N 148th St at Meridian Ave N. ADA compliant curb ramps are required for the legal crossing across N 148th St at Meridian Ave N. (Exhibits 14 and 19, Site Plan and Right-of-Way Plan).	Along N 148 th Street, from the centerline of the ROW, provide a 10-foot travel lane, 7-foot parking lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. A reduced throat of 12-feet <u>measured from the ROW centerline shall be provided at the intersection to Meridian Ave N., across the two vehicular accesses, and along those areas where conflicts would exist between proposed storm drainage and existing utilities if full width installed.</u> ADA compliant curb ramps are required for the legal crossing across N 148th St at Meridian Ave N. (Exhibits 14 and 19, Site Plan and Right-of-Way Plan).	The frontage improvement requirement should be measured from the center of the ROW to the subject property rather than including the frontage of the property on the other side of the street. This change makes that clear and aligns with the City-approved frontage improvements shown in the referenced Exhibits 14 and 19.

<p>Sec. 11.2.b</p>	<p>b) Along N 148th St: i. From the centerline of the existing ROW, provide a 10' travel lane, 7' parking, 6" curb, 5' amenity zone, and 8' sidewalk. ii. Provide a reduced throat on N 148th St at Meridian Ave N. <u>The roadway width at the reduced throat should be 24'.</u> iii. ADA compliant curb ramps are required for the legal crossing across N 148th St at Meridian Ave N.</p>	<p>b) Along N 148th St: i. From the centerline of the existing ROW, provide a 10' travel lane, 7' parking, 6" curb, 5' amenity zone, and 8' sidewalk. ii. Provide a reduced throat on N 148th St of <u>12-feet measured from the ROW centerline at the intersection to Meridian Ave N., across the two vehicular accesses, and along those areas where conflicts would exist between proposed storm drainage and existing utilities if full width installed.</u> iii. ADA compliant curb ramps are required for the legal crossing across N 148th St at Meridian Ave N.</p>	<p>Same comment as above.</p>
<p>Sec. 8.4</p>	<p>Along N 147th Street, from the centerline of the street, provide a 10-foot travel lane, 7-foot parking lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. A reduced throat of <u>24-feet</u> is required on N 147th St at Meridian Ave N. ADA compliant curb ramps are required for the legal crossing across N 147th St at Meridian Ave N. (Exhibits 14 and 19, Site Plan and Right-of-Way Plan).</p>	<p>Along N 147th Street, from the centerline of the <u>ROW</u>, provide a 10-foot travel lane, 7-foot parking lane, 6-inch curb, 5-foot amenity zone, and 8-foot sidewalk. A reduced throat of <u>12-feet measured from the ROW centerline shall be provided at the intersection to Meridian Ave N., across the two vehicular accesses, and along those areas where conflicts would exist between proposed storm drainage and existing utilities if full width installed.</u> ADA compliant curb ramps are required for the legal crossing across N 147th St at Meridian Ave N. (Exhibits 14 and 19, Site Plan and Right-of-Way Plan).</p>	<p>Same comment as above.</p>

Sec. 11.2.a	<p>a) Along N 147th St:</p> <p>i. From the centerline of the existing ROW, provide a 10' travel lane, 7' parking, 6" curb, 5' amenity zone, and 8' sidewalk.</p> <p>ii. Provide a reduced throat on N 147th St at Meridian Ave N.</p> <p><u>The roadway width at the reduced throat should be 24'.</u></p> <p>iii. ADA compliant curb ramps are required for the legal crossing across N 147th St at Meridian Ave N.</p>	<p>a) Along N 147th St:</p> <p>i. From the centerline of the existing ROW, provide a 10' travel lane, 7' parking, 6" curb, 5' amenity zone, and 8' sidewalk.</p> <p>ii. Provide a reduced throat on N 147th St <u>of 12-feet measured from the ROW centerline at the intersection to Meridian Ave NE and across the vehicular access.</u></p> <p>iii. ADA compliant curb ramps are required for the legal crossing across N 147th St at Meridian Ave N.</p>	Same comment as above.
New Condition # 25	None	The frontage improvements described in Section 11.2 shall be installed by the applicant prior to final plat approval, or the applicant may post a bond or other surety as described in Section 10.5	Section 11.2 currently states that the frontage improvements described in 11.2 will be a condition of approval, but the conditions do not cross-reference 11.2. This proposed condition #25 provides the missing cross-reference.
Condition #1	<p>The applicant shall file for a Lot Merger to merge the eleven (11) existing lots. Development permits for the Site, including but not limited to, clearing and grading permits, site development permits, right-of-way permits, and building permits, shall not be issued until the City has approved a Lot Merger for the Site and the same has been recorded with the King County Recorder's Office. <u>Failure to apply for or receive approval of a Lot Merger, or to record an approved Lot Merger, shall render the Preliminary Plat null and void and as such, no Final</u></p>	<p>The applicant shall file for a Lot Merger to merge the eleven (11) existing lots. Development permits for the Site, including but not limited to, clearing and grading permits, site development permits, right-of-way permits, and building permits, shall not be issued until the City has approved a Lot Merger for the Site and the same has been recorded with the King County Recorder's Office. <u>The Lot Merger must be approved and recorded prior to Final Plat approval.</u></p>	<p>The current <u>highlighted</u> language nullifies the preliminary plat upon the non-occurrence of several events without any dates by which the described events must occur. The requested language simplifies the requirement by stating that the Lot Merger must happen before the final plat will be approved and recorded. The Code controls when the preliminary plat approval will expire, so nullification language is unnecessary.</p>

	Plat shall be approved or recorded.		
Condition # 6	The stormwater facilities shall be complete and pass inspection prior to approval of the Final Short Plat, or the applicant shall post suitable bond or surety to guarantee the completion of improvements within one year of the approval of the final plat.	The stormwater facilities shall be complete and pass inspection prior to approval of the Final Short Plat, or the applicant shall post suitable bond or surety to guarantee the completion of improvements within one year of the approval of the final plat.	The Subdivision is not a short subdivision. The requested change corrects a typo.
Condition #8	A joint use maintenance agreement identifying the rights and responsibilities of property owners within the final plat, or a homeowner's association, shall be executed for the maintenance and operation of the stormwater facilities and recorded with the King County Recorder's Office prior to approval of the final plat. Or, in the alternative, joint use maintenance agreement language shall be included on the face of the final plat. If the declaration of covenant is used to outline the maintenance requirements, it must expressly be stated on the final plat.	A joint use maintenance agreement identifying the rights and responsibilities of property owners within the final plat, or a homeowner's association, for the maintenance and operation of the stormwater facilities <u>shall be approved by the City prior to final plat approval and the approved document shall be recorded with the King County Recorder's Office at the time the final plat is recorded.</u> Or, in the alternative, joint use maintenance agreement language shall be included on the face of the final plat. If the declaration of covenant is used to outline the maintenance requirements, <u>the recording number of the covenant</u> must be stated on the final plat.	State law (e.g., RCW 64.90.255(l)) requires declarations of covenants, conditions and restrictions to be recorded with the final plat—not before the final plat is approved. The cited RCW requires the declaration to include the final plat recording number, which cannot occur if the declaration is recorded first. To comply with state law, the requested language requires the City to approve the declaration prior to final plat approval and requires the approved declaration to be recorded with the final plat.

Attachment A

Permits

- ▶ Apply / New Permit
- ▶ Search Permit
- ▶ Pay Fees

Projects

- ▶ Search Projects

Contractor

Properties

- ▶ Search Property

Inspections

- ▶ Schedule
- ▶ Cancel
- ▶ Scheduled

Shopping Cart

- ▶ Pay All Fees
- ▶ Paid Items

Contact

- ▶ Contact us

Permit Search

Search By:

PERMIT NUMBER



Contains



PIN21-1402

SEARCH

Attachment 2B

[Click here for search examples](#)

Search Results



Search Results

PERMIT NUMBER

PIN21-1402

PRINT

EXPORT TO EXCEL

Permit #PIN21-1402

Permit Info

Site Info

Contacts (4)

Conditions (0)

Reviews (1)

Type: PRE INTAKE RECORD

Subtype:

Short Description: 5 Degrees - Deviation Request for Intersection Landing

Status: CLOSED

Applied Date: 6/24/2021

Approved Date: 7/28/2021

Issued Date:

Final Date:

Expiration Date:

Linked Activities:



Parent Project

ENG21-0130 DEVIATION FROM ENGINEERING STANDARDS APPL SUBMITTED

8a-557

Attachment B

Permits

- ▶ [Apply / New Permit](#)
- ▶ [Search Permit](#)
- ▶ [Pay Fees](#)

Projects

- ▶ [Search Projects](#)

Contractor

Properties

- ▶ [Search Property](#)

Inspections

- ▶ [Schedule](#)
- ▶ [Cancel](#)
- ▶ [Scheduled](#)

Shopping Cart

- ▶ [Pay All Fees](#)
- ▶ [Paid Items](#)

Contact

- ▶ [Contact us](#)

Permit Search

Search By:

PERMIT NUMBER

Contains

PIN21-1403

SEARCH

[Click here for search examples](#)

Search Results



Search Results

PERMIT NUMBER

PIN21-1403

Permit #PIN21-1403

PRINT

EXPORT TO EXCEL

Permit Info

Site Info

Contacts (4)

Conditions (0)

Reviews (1)

Type: PRE INTAKE RECORD

Subtype:

Short Description: 5 Degrees Deviation Request for Drop Structures

Status: CLOSED

Applied Date: 6/24/2021

Approved Date: 8/16/2021

Issued Date:

Finalized Date:

Expiration Date:

Linked Activities:



Parent Project

ENG21-0132 DEVIATION FROM ENGINEERING STANDARDS APPL SUBMITTED

Attachment C

Maximum Extent Feasible Documentation for ADA Guidelines Compliance

Summary Sheet - Design

This is to request an official City review of the maximum extent feasible (MEF) design documentation for the occasional case where a pedestrian facility (including driveways which include sidewalks) in the public-right-of-way cannot be altered to comply fully with accessibility standards.

Any features of a pedestrian facility that can be made accessible shall be made accessible regardless of whether or not some features cannot be altered to fully comply with applicable accessibility standards. MEF Applications and supporting documentation shall not be approved where there is an attempt to justify acceptance of pedestrian facilities that were improperly designed or constructed.

One Summary Sheet is required per project phase (Design and As Constructed). Each facility (curb ramp, driveway, pedestrian light signal, etc.) shall have its own MEF Facility Documentation that will be attached to the report. Together, these forms shall be filled out and submitted with the Right-of-Way Use Permit application. In addition, after construction is complete this form shall be filled out for the as-built constructed conditions and submitted to the City for approval before final acceptance of the project.

Project Name: 5 Degrees

Project Location: SE Corner N 148th Street and Meridian Avenue N

Project Description: Curb Ramp Flare Exceeds 10% and Ramp and Landing Exceed 2%.

Date: 8/8/2021 **PE Stamp:**

Engineer: Gina Brooks

Firm: Core Design, Inc.

Address: 12100 NE 195th St, Suite 300, Bothell

Phone #: 425-885-7877

Email: grb@coredesigninc.com



The purpose of this document is to provide a record of Americans with Disabilities Act (ADA) accessibility compliance for pedestrian facilities, curb ramps and associated elements for the above stated project.

MEF documentation shall provide sufficient detail to clearly identify the location of each pedestrian facility to be evaluated, and:

1. Reference the applicable accessibility standard for each pedestrian facility where standards cannot be fully complied with;
2. Describe the circumstances that make it infeasible to achieve full compliance;
3. Document design alternatives that were considered in an attempt to comply with standards;
4. Describe how accessibility standards are met to the maximum extent feasible; and
5. Attach drawing, engineering calculations, or other data to substantiate the request.

ADA Compliance Design Guidelines:

The design criteria guidance for ADA compliance for this project is the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), 2011 version and the ADA standards for Accessible Design.

Facility List:

Facility No.	Facility Type	City Reviewer Acceptance	Review Comments
1			
2			
3			

City Engineer Acceptance: _____
(or designated reviewer)

<Reviewer Name>

Date: _____

Maximum Extent Feasible Documentation for ADA Guidelines Compliance

Facility Documentation – Design

Facility Number:

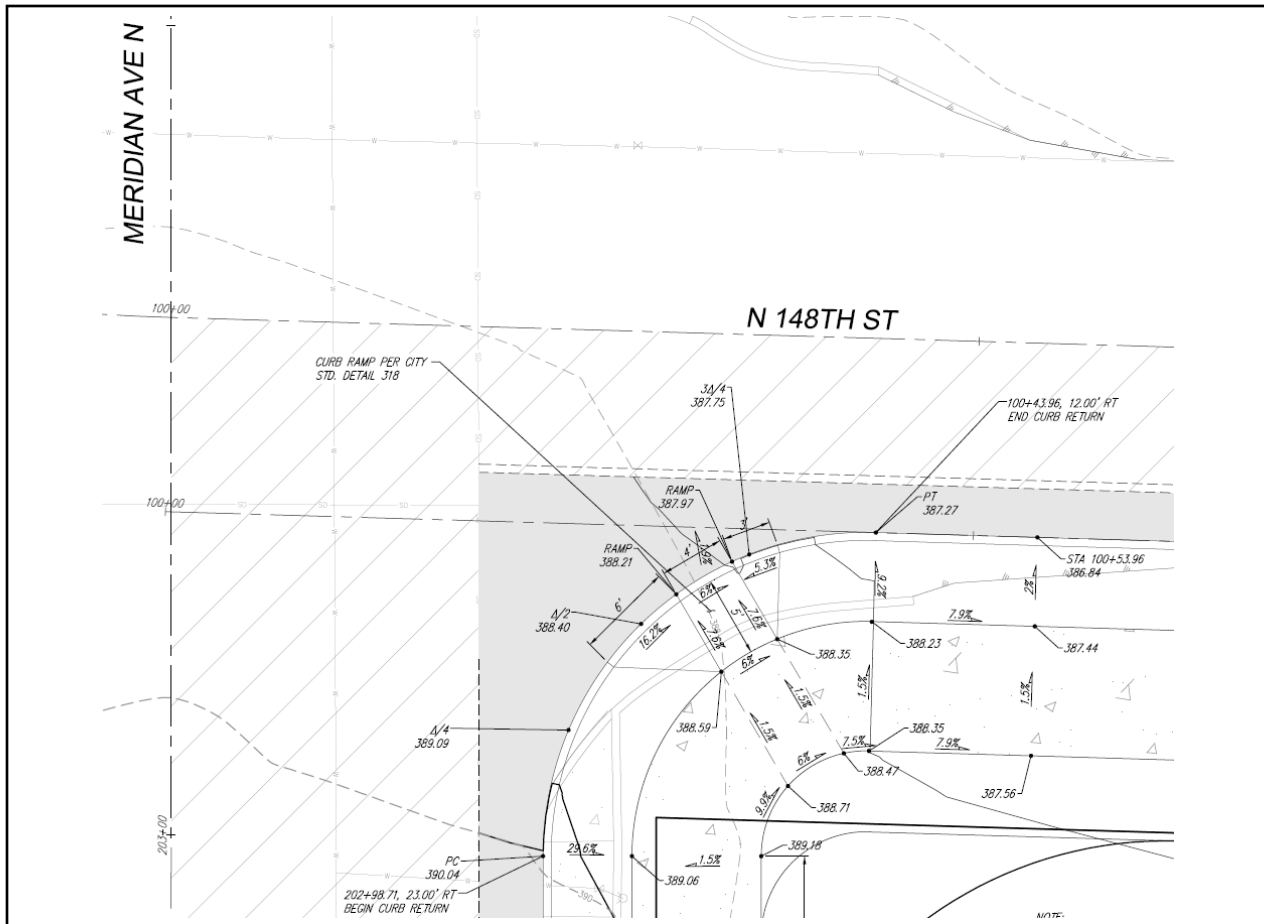
Facility Type: Curb Ramp

Facility Location: SE Corner N 148th St and Meridian Ave N

Existing Conditions Photo



Civil Detail



MEF Element #1	
Standard:	Ramp and landing shall not exceed 2%
Proposed Design:	Proposed ramp slope and landing are 6.0%.
Justification:	The proposed curb ramp at the SE Corner of 148 th and Meridian replaces an existing single ramp located at the same corner along an “aggressively” sloped curb return at the SE Corner of 148 th and Meridian. This curb return was designed from the street to the sidewalk matching road grades to the max extent feasible to provide a smooth grade along the curb return to eliminate extreme warping and potential ponding concerns resulting in cross slopes along the curb and landing to exceed the standard 2%.

MEF Element #2	
Standard:	Curb ramp flare shall not exceed 10%
Proposed Design:	Proposed west flare is sloped at 16.2%.
Justification:	The west flared side was set to 6 feet in length and results in a slope of 16.2% in order to match into the 6-inch high curb.
MEF Element #3	
Standard:	
Proposed Design:	
Justification:	

Maximum Extent Feasible Documentation for ADA Guidelines Compliance

Summary Sheet - Design

This is to request an official City review of the maximum extent feasible (MEF) design documentation for the occasional case where a pedestrian facility (including driveways which include sidewalks) in the public-right-of-way cannot be altered to comply fully with accessibility standards.

Any features of a pedestrian facility that can be made accessible shall be made accessible regardless of whether or not some features cannot be altered to fully comply with applicable accessibility standards. MEF Applications and supporting documentation shall not be approved where there is an attempt to justify acceptance of pedestrian facilities that were improperly designed or constructed.

One Summary Sheet is required per project phase (Design and As Constructed). Each facility (curb ramp, driveway, pedestrian light signal, etc.) shall have its own MEF Facility Documentation that will be attached to the report. Together, these forms shall be filled out and submitted with the Right-of-Way Use Permit application. In addition, after construction is complete this form shall be filled out for the as-built constructed conditions and submitted to the City for approval before final acceptance of the project.

Project Name: 5 Degrees

Project Location: NE Corner N 147th Street and Meridian Avenue N

Project Description: Curb Ramp Flares Exceed 10% and Ramps Exceed 2%.

Date: 8/8/2021 **PE Stamp:**

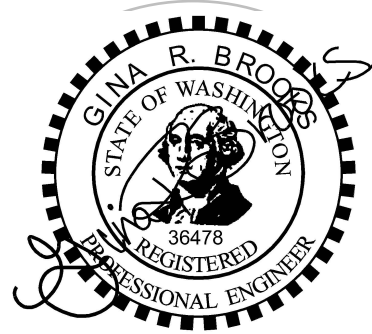
Engineer: Gina Brooks

Firm: Core Design, Inc.

Address: 12100 NE 195th St, Suite 300, Bothell

Phone #: 425-885-7877

Email: grb@coredesigninc.com



The purpose of this document is to provide a record of Americans with Disabilities Act (ADA) accessibility compliance for pedestrian facilities, curb ramps and associated elements for the above stated project.

MEF documentation shall provide sufficient detail to clearly identify the location of each pedestrian facility to be evaluated, and:

1. Reference the applicable accessibility standard for each pedestrian facility where standards cannot be fully complied with;
2. Describe the circumstances that make it infeasible to achieve full compliance;
3. Document design alternatives that were considered in an attempt to comply with standards;
4. Describe how accessibility standards are met to the maximum extent feasible; and
5. Attach drawing, engineering calculations, or other data to substantiate the request.

ADA Compliance Design Guidelines:

The design criteria guidance for ADA compliance for this project is the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), 2011 version and the ADA standards for Accessible Design.

Facility List:

Facility No.	Facility Type	City Reviewer Acceptance	Review Comments
1			
2			
3			

City Engineer Acceptance: _____
(or designated reviewer)

<Reviewer Name>

Date: _____

Maximum Extent Feasible Documentation for ADA Guidelines Compliance

Facility Documentation – Design

Facility Number:

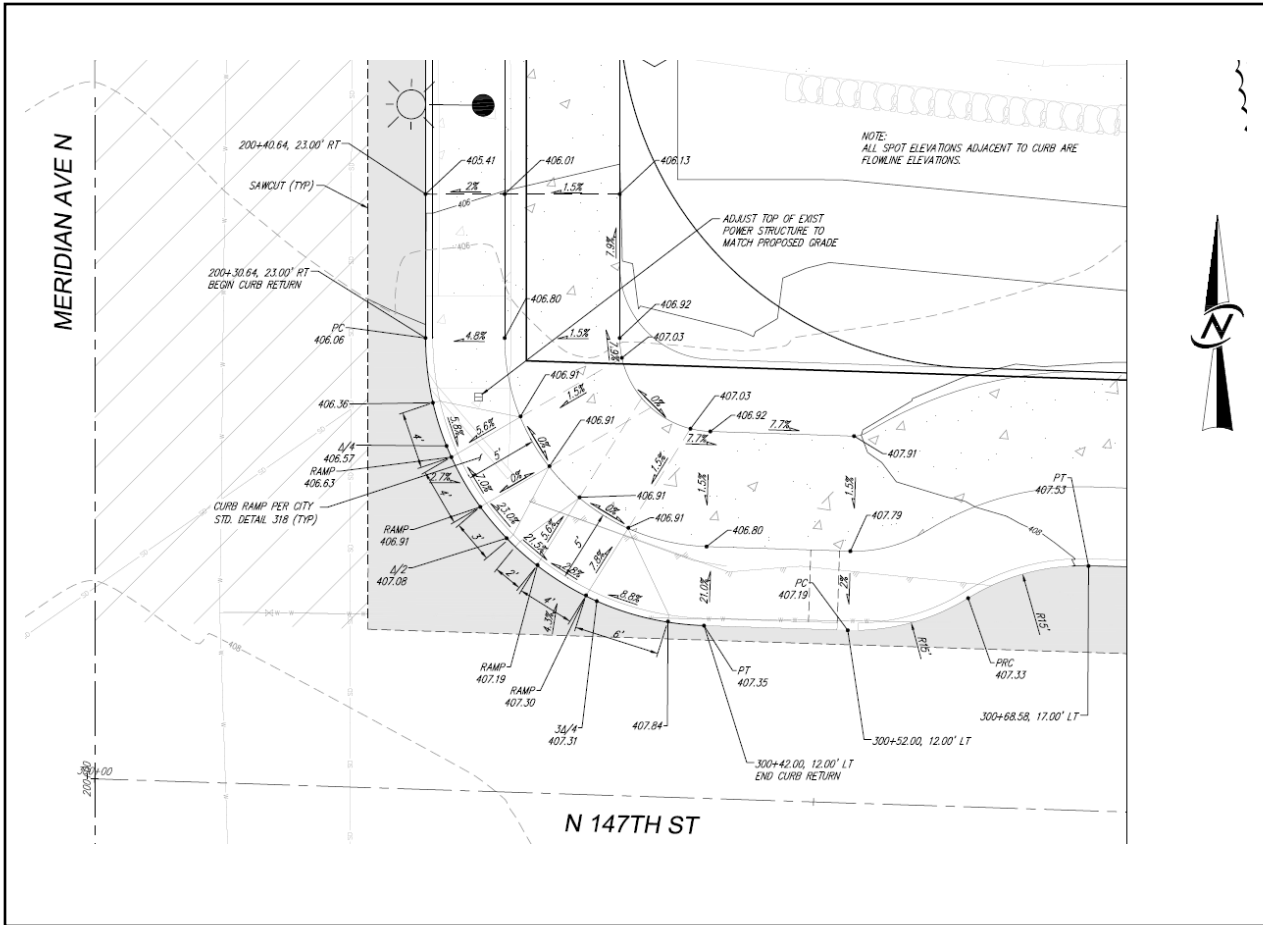
Facility Type: Curb Ramp

Facility Location: NE Corner N 147th St and Meridian Ave N

Existing Conditions Photo



Civil Detail



MEF Element #1	
Standard:	Ramp shall not exceed 2%
Proposed Design:	Proposed ramp slopes are 2.8% and 7.0%.
Justification:	The proposed curb ramps at the NE Corner of 147 th and Meridian replace an existing single ramp located at the same corner along an “aggressively” sloped curb return at the NE Corner of 147 th and Meridian. This curb return was designed from the street to the sidewalk matching road grades to the max extent feasible to provide a smooth grade along the curb return to eliminate extreme warping and potential ponding concerns resulting in cross slopes along the curb at the ramps to exceed the standard 2%.

MEF Element #2	
Standard:	Curb ramp flare shall not exceed 10%
Proposed Design:	Proposed flares between curb ramps are sloped at 21.5% and 23.0%.
Justification:	The length of the flared sides between the two ramps were maximized to allow a short segment of 6-inch high curb between them resulting in flares with slopes of 21.5% and 23.0%.
MEF Element #3	
Standard:	
Proposed Design:	
Justification:	

To: Taylor Brown (City of Shoreline)
From: Gina Brooks, P.E. (Core Design, Inc.)
Date: August 12, 2021
Re: 5 Degrees – Deviation from Engineering Standard EDM Section 13.7.C. (Pedestrian Accommodations – Compliant Companion Ramps)

The 5 Degrees project is seeking a deviation from EDM Section 13.7.C. The subject project is applying this deviation to the two existing companion curb ramps across N 147th Street and N 148th Street that align with proposed curb ramps constructed as part of the subject project. This deviation requests compliance with RCW 35.68.075 which would allow the existing ramps to remain as they are. In other words, the existing ramps would not require reconstruction as part of this development.

PROJECT DESCRIPTION

Frontage improvements, including the installation of curb ramps, are required along N 147th Street and N 148th Street as part of the subject development. Per EDM Section 13.7.C., “corresponding compliant companion ramps shall be retrofitted or constructed”. Existing companion ramps already exist on the south side of N 147th Street at Meridian and on the north side of N 148th Street at Meridian. Per the standard, these existing ramps are required to be retrofitted to meet the 2020 EDM.

PROPOSAL FOR DEVIATION

Due to space constraints and the existing sidewalk configuration, the existing ramps would require a retrofit that complies with the single direction curb ramp City Standard Detail 317. Ultimately, it is the City’s desire to have two curb ramps per corner meeting the perpendicular curb ramp City Standard Detail 318. If the companion ramps are retrofitted to meet standard, future developments adjacent to these ramps could argue that these reconstructed ramps meet ADA standards and would not need to be reconstructed to meet City Standard Detail 318.

This project is subject to the 2020 EDM. The 2021 EDM though, revises the subject requirement to permit projects to review existing companion ramps for compliance with RCW 35.68.075. RCW 35.68.075 is met if the ramp width is at least 36 inches wide. The widths of the existing ramps are more than 36 inches wide meeting RCW 35.68.075 compliance. This deviation requests this project to adhere to the 2021 EDM Section 13.7.C. (Pedestrian Accommodations – Compliant Companion Ramps) which permits the existing ramps to remain as they are without retrofit.

JUSTIFICATION

Per SMC 20.30.290, an adjustment can be granted from the Engineering Standards if sufficient justification can be provided per the nine design criteria below. Justification is provided in ***bold italicized*** text below.

1. The granting of such deviation will not be materially detrimental to the public welfare or injurious or create adverse impacts to the property or other property(s) and improvements in the vicinity and in the zone in which the subject property is situated;
The subject deviation would not impact the public as pedestrian travel would not be affected by this deviation.
2. The authorization of such deviation will not adversely affect the implementation of the Comprehensive Plan adopted in accordance with State law;
The subject deviation would not affect the Comprehensive Plan.
3. The deviation is not in conflict with the standards of the critical areas regulations, Chapter 20.80 SMC, Critical Areas, or Shoreline Master Program, SMC Title 20, Division II;
The subject deviation would not affect critical areas.
4. A deviation from engineering standards shall only be granted if the proposal meets the following criteria:
 - a. Conform to the intent and purpose of the Code;
 - b. Produce a compensating or comparable result which is in the public interest; and
 - c. Meet the objectives of safety, function and maintainability based upon sound engineering judgment;*The 2021 EDM revises the 2020 EDM standard to which this development must adhere to. The subject deviation conforms to the intent and purpose of the updated Code. As described above, it is the City's desire to have two curb ramps per corner meeting the perpendicular curb ramp City Standard Detail 318. This desire is met by "not" retrofitting the existing ramps providing for a compensating result for the current and future public interest. Existing pedestrian travel is maintained, and desired ramps will be installed in the future. Safe and functional pedestrian travel is maintained with this deviation request. Maintenance requirements are unchanged with this deviation.*
5. Deviations from road standards must meet the objectives for fire protection. Any deviation from road standards, which does not meet the International Fire Code, shall also require concurrence by the Fire Marshal;
This deviation would not impact fire protection access.
6. Deviations from drainage standards contained in the Stormwater Manual and Chapter 13.10 SMC must meet the objectives for appearance and environmental protection;
This deviation does not require deviations from the drainage standards.
7. Deviations from drainage standards contained in the Stormwater Manual and Chapter 13.10 SMC must be shown to be justified and required for the use and situation intended;
This deviation does not require deviations from the drainage standards.
8. Deviations from drainage standards for facilities that request use of emerging technologies, an experimental water quality facility or flow control facilities must meet these additional criteria:

- a. The new design is likely to meet the identified target pollutant removal goal or flow control performance based on limited data and theoretical consideration;
- b. Construction of the facility can, in practice, be successfully carried out; and
- c. Maintenance considerations are included in the design, and costs are not excessive or are borne and reliably performed by the applicant or property owner;

This deviation does not require deviations from the drainage standards.

9. Deviations from utility standards shall only be granted if following facts and conditions exist:

- a. The deviation shall not constitute a grant of special privilege inconsistent with the limitation upon uses of other properties in the vicinity and in the zone in which the property on behalf of which the application was filed is located;
- b. The deviation is necessary because of special circumstances relating to the size, shape, topography, location or surrounding of the subject property in order to provide it with use rights and privileges permitted to other properties in the vicinity and in the zone in which the subject property is located; and
- c. The granting of such deviation is necessary for the preservation and enjoyment of a substantial property right of the applicant possessed by the owners of other properties in the same zone or vicinity.

This deviation does not require deviations from the utility standards.

Attachment D

Rachel Wang

From: Catherine Lee <cllee@shorelinewa.gov>
Sent: Friday, January 14, 2022 3:41 PM
To: Randall Olsen
Subject: FW: PLN20-0139 - WW Review

Follow Up Flag: Follow up
Flag Status: Flagged

FYI, I will ask Kendyl if this can provided as part of the record now, or if it needs to be presented at the hearing on Tuesday evening.



Cate Lee, AICP | Senior Planner
 Planning & Community Development Department
 17500 Midvale Avenue N, Shoreline, WA 98133
 206-801-2557
cllee@shorelinewa.gov
 Pronouns: she/her

****Permit Technicians, Planners and Plans Examiners have in-person appointments available at City Hall and virtual appointments available online. Drop-in services are limited, and appointments are prioritized. Visit our [bookings page](#) to schedule an in-person or virtual appointment. Remote services are encouraged.**

Hours of operations – Monday, Tuesday, and Friday 8:00 to 5:00 and Wednesday and Thursday from 1:00 to 5:00.

For permit submittal questions email pcd@shorelinewa.gov or call 206-801-2500.

From: Brent Proffitt <bproffitt@shorelinewa.gov>
Sent: Friday, January 14, 2022 3:39 PM
To: Catherine Lee <cllee@shorelinewa.gov>
Subject: RE: PLN20-0139 - WW Review

Status updated to conditional approval. Thanks Cate, and have a good weekend!

Brent Proffitt

Wastewater Utility Specialist | City of Shoreline
 17500 Midvale Avenue N, Shoreline, WA 98133
 w (206) 801-2578 | c (206) 818-0907 | www.shorelinewa.gov
*Supporting a sustainable and vibrant community through
 stewardship of our public infrastructure and natural environment.*



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From: Catherine Lee <clee@shorelinewa.gov>
Sent: Friday, January 14, 2022 1:47 PM
To: Brent Proffitt <bproffitt@shorelinewa.gov>
Subject: PLN20-0139 - WW Review

Hi Brent,

You've entered in WW info on this TRAKiT review but no status. Will you enter a status? I am taking this to the Hearing Examiner on Tuesday so its really important.

I'm guessing the status is "conditional approval"?

Group	Status	Reviewer	Remarks	Sent	Due	Returned
AUTO	RESUBMITTAL REQUIR...		(no remarks)		12/18/21	1/5/202
PROCEDURAL/SEPA/NO...		Cate Lee	NOA	10/19/21	10/22/2	10/22/2
AUTO	APPROVED					
TREE TRACKING		Cate Lee	(no remarks)	10/19/21	12/18/21	1/5/202
AUTO	RESUBMITTAL REQUIR...					
WASTEWATER		Brent Proffitt	DEVELOPER EXTENSION REQUIRED	10/19/21	12/18/21	1/25/20
AUTO						
PROCEDURAL/SEPA/NO...		Cate Lee	SEE NOTES	11/17/20	12/4/20	12/4/20
ALL	COMPLETED					
PLANNING SUBDIVISI...		Cate Lee	(no remarks)	5/3/202	6/18/20	7/10/20
AUTO	RESUBMITTAL REQUIR...					

Thanks,



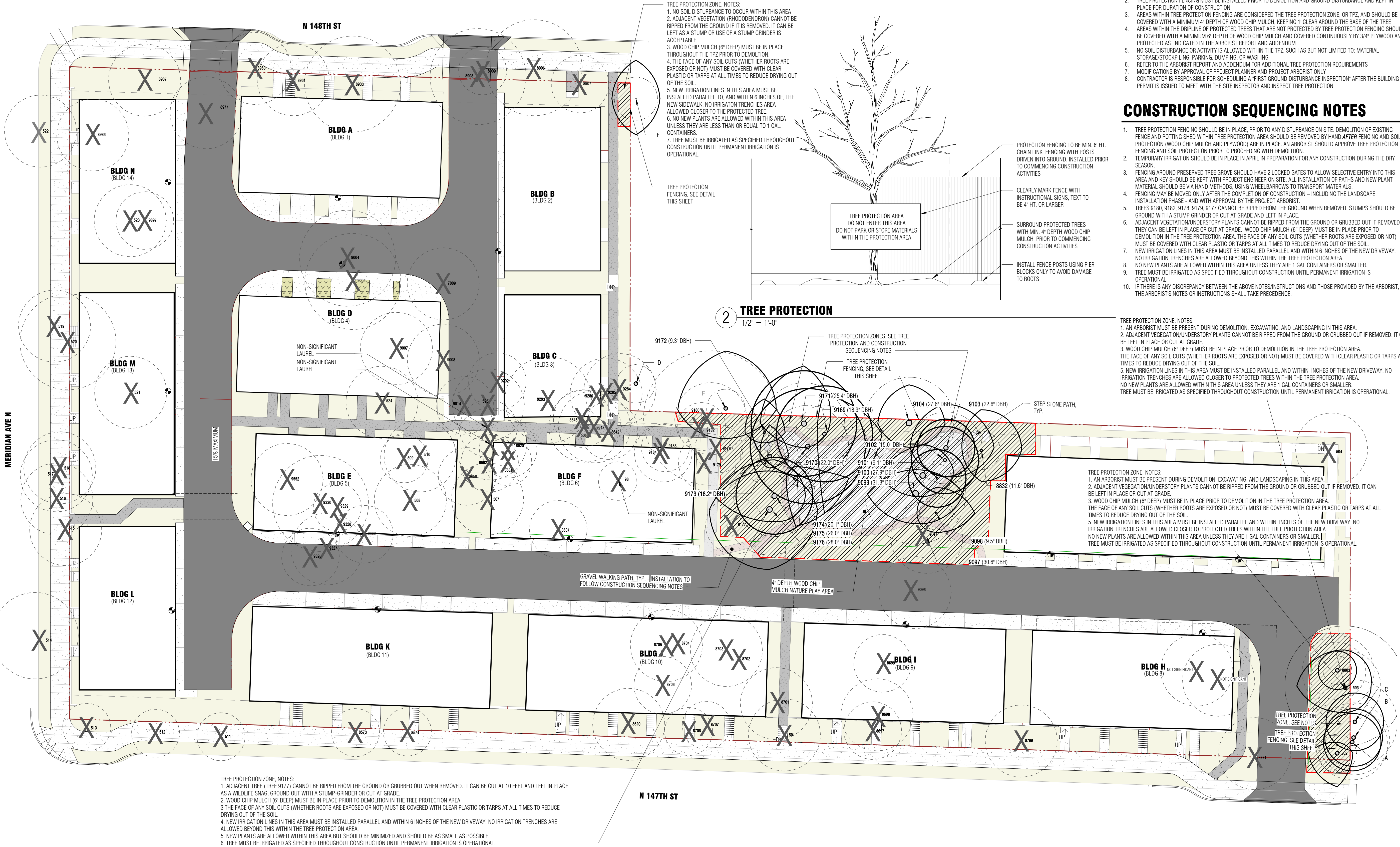
Cate Lee, AICP | Senior Planner
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Attachment E



1 TREE PROTECTION PLAN

1" = 20'-0"

GENERAL NOTES

1. NO CRITICAL AREAS OR THEIR BUFFERS ARE LOCATED ON THE SITE, OR ADJACENT TO THE SITE.
2. REFER TO ARBORIST REPORT AND ARBORIST TREE TABLE FOR TREE REMOVAL AND REPLACEMENT CALCULATIONS.

TREE AND SOIL PROTECTION NOTES

1. TREE PROTECTION FENCING IS REQUIRED AROUND ENTIRE DRIPLINE OR AS SHOWN ON THE APPROVED TREE PROTECTION PLAN
2. TREE PROTECTION FENCING MUST BE INSTALLED PRIOR TO DEMOLITION AND GROUND DISTURBANCE AND KEPT IN PLACE FOR DURATION OF CONSTRUCTION
3. AREAS WITHIN TREE PROTECTION FENCING ARE CONSIDERED THE TREE PROTECTION ZONE, OR TPZ, AND SHOULD BE COVERED WITH A MINIMUM 4" DEPTH OF WOOD CHIP MULCH, KEEPING 1' CLEAR AROUND THE BASE OF THE TREE
4. AREAS WITHIN THE DRIPLINE OF PROTECTED TREES THAT ARE NOT PROTECTED BY TREE PROTECTION FENCING SHOULD BE COVERED WITH A MINIMUM 6" DEPTH OF WOOD CHIP MULCH AND COVERED CONTINUOUSLY BY 3/4" PLYWOOD AND PROTECTED AS INDICATED IN THE ARBORIST REPORT AND ADDENDUM
5. NO SOIL DISTURBANCE OR ACTIVITY IS ALLOWED WITHIN THE TPZ, SUCH AS BUT NOT LIMITED TO: MATERIAL STORAGE/STOCKPILING, PARKING, DUMPING, OR WASHING
6. REFER TO THE ARBORIST REPORT AND ADDENDUM FOR ADDITIONAL TREE PROTECTION REQUIREMENTS
7. MODIFICATIONS BY APPROVAL OF PROJECT PLANNER AND PROJECT ARBORIST ONLY
8. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A "FIRST GROUND DISTURBANCE INSPECTION" AFTER THE BUILDING PERMIT IS ISSUED TO MEET WITH THE SITE INSPECTOR AND INSPECT TREE PROTECTION

CONSTRUCTION SEQUENCING NOTES

1. TREE PROTECTION FENCING SHOULD BE IN PLACE, PRIOR TO ANY DISTURBANCE ON SITE. DEMOLITION OF EXISTING FENCE AND POTTING SHED WITHIN TREE PROTECTION AREA SHOULD BE REMOVED BY HAND **AFTER** FENCING AND SOIL PROTECTION (WOOD CHIP MULCH AND PLYWOOD) ARE IN PLACE. AN ARBORIST SHOULD APPROVE TREE PROTECTION FENCING AND SOIL PROTECTION PRIOR TO PROCEEDING WITH DEMOLITION
2. TEMPORARY IRRIGATION SHOULD BE IN PLACE IN APRIL IN PREPARATION FOR ANY CONSTRUCTION DURING THE DRY SEASON.
3. FENCING AROUND PRESERVED TREE GROVE SHOULD HAVE 2 LOCKED GATES TO ALLOW SELECTIVE ENTRY INTO THIS AREA AND KEY SHOULD BE KEPT WITH PROJECT ENGINEER ON SITE. ALL INSTALLATION OF PATHS AND NEW PLANT MATERIAL SHOULD BE VIA HAND METHODS, USING WHEELBARROWS TO TRANSPORT MATERIALS.
4. FENCING MAY BE MOVED ONLY AFTER THE COMPLETION OF CONSTRUCTION - INCLUDING THE LANDSCAPE INSTALLATION PHASE - AND WITH APPROVAL BY THE PROJECT ARBORIST.
5. TREES 9180, 9182, 9178, 9179, 9177 CANNOT BE RIPPED FROM THE GROUND WHEN REMOVED. STUMPS SHOULD BE GROUND WITH A STUMP GRINDER OR CUT AT GRADE AND LEFT IN PLACE.
6. ADJACENT VEGETATION/UNDERSTORY PLANTS CANNOT BE RIPPED FROM THE GROUND OR GRUBBED OUT IF REMOVED. THEY CAN BE LEFT IN PLACE OR CUT AT GRADE. WOOD CHIP MULCH (6" DEEP) MUST BE IN PLACE PRIOR TO DEMOLITION IN THE TREE PROTECTION AREA. THE FACE OF ANY SOIL CUTS (WHETHER ROOTS ARE EXPOSED OR NOT) MUST BE COVERED WITH CLEAR PLASTIC OR TARPS AT ALL TIMES TO REDUCE DRYING OUT OF THE SOIL.
7. NEW IRRIGATION LINES IN THIS AREA MUST BE INSTALLED PARALLEL AND WITHIN 6 INCHES OF THE NEW DRIVEWAY. NO IRRIGATION TRENCHES ARE ALLOWED BEYOND THIS WITHIN THE TREE PROTECTION AREA.
8. NO NEW PLANTS ARE ALLOWED WITHIN THIS AREA UNLESS THEY ARE 1 GAL CONTAINERS OR SMALLER.
9. TREE MUST BE IRRIGATED AS SPECIFIED THROUGHOUT CONSTRUCTION UNTIL PERMANENT IRRIGATION IS OPERATIONAL.
10. IF THERE IS ANY DISCREPANCY BETWEEN THE ABOVE NOTES/INSTRUCTIONS AND THOSE PROVIDED BY THE ARBORIST, THE ARBORIST'S NOTES OR INSTRUCTIONS SHALL TAKE PRECEDENCE.

- TREE PROTECTION ZONE, NOTES:
1. AN ARBORIST MUST BE PRESENT DURING DEMOLITION, EXCAVATING, AND LANDSCAPING IN THIS AREA.
 2. ADJACENT VEGETATION/UNDERSTORY PLANTS CANNOT BE RIPPED FROM THE GROUND OR GRUBBED OUT IF REMOVED. IT CAN BE LEFT IN PLACE OR CUT AT GRADE.
 3. WOOD CHIP MULCH (6" DEEP) MUST BE IN PLACE PRIOR TO DEMOLITION IN THE TREE PROTECTION AREA. THE FACE OF ANY SOIL CUTS (WHETHER ROOTS ARE EXPOSED OR NOT) MUST BE COVERED WITH CLEAR PLASTIC OR TARPS AT ALL TIMES TO REDUCE DRYING OUT OF THE SOIL.
 5. NEW IRRIGATION LINES IN THIS AREA MUST BE INSTALLED PARALLEL AND WITHIN INCHES OF THE NEW DRIVEWAY. NO IRRIGATION TRENCHES ARE ALLOWED CLOSER TO PROTECTED TREES WITHIN THE TREE PROTECTION AREA. NO NEW PLANTS ARE ALLOWED WITHIN THIS AREA UNLESS THEY ARE 1 GAL CONTAINERS OR SMALLER.
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PULTE 5 DEGREES SHORELINE

PROJECT ADDRESS:
14704 MERIDIAN AVE N
SHORELINE, WA 98133
OWNER:
PULTE HOMES
3535 FACTORY BLVD SE
BELLEVUE, WA 98006

REVISION	DATE	DESCRIPTION
2	2021.08.19	PERMIT CORRECTIONS #2
1	2021.04.23	PERMIT CORRECTIONS #1

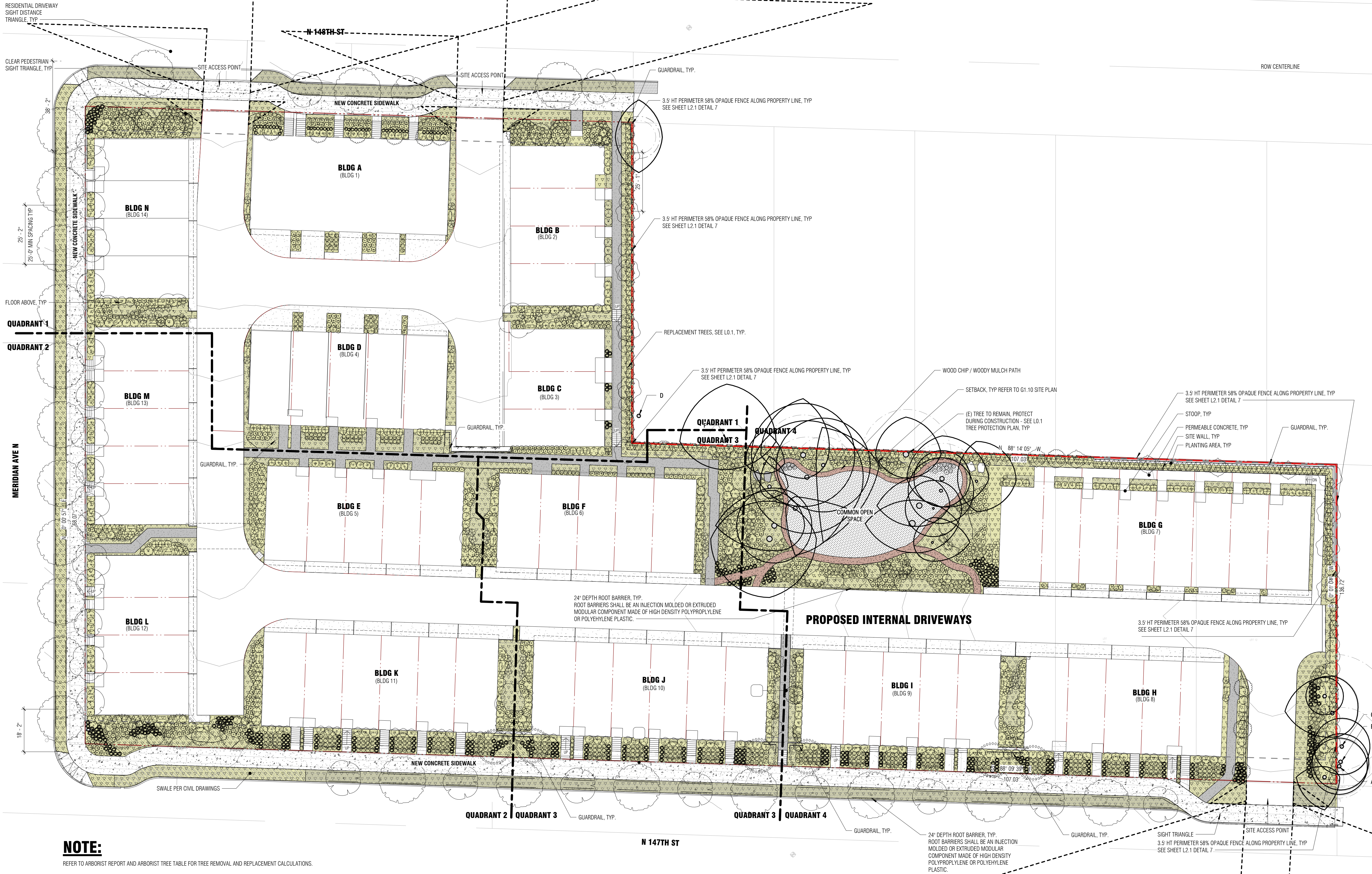
ISSUANCES

DATE	DESCRIPTION
2020.08.07	BUILDING PERMIT SET
2021.04.23	PERMIT CORRECTIONS #1
2021.07.27	PRICING SET
2021.08.19	PERMIT CORRECTIONS #2

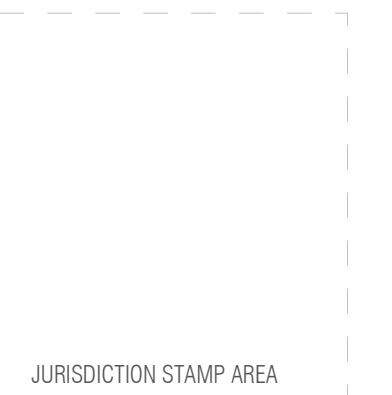
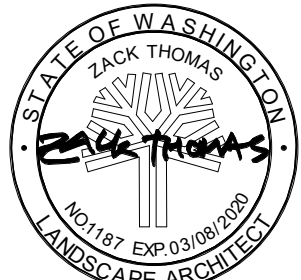
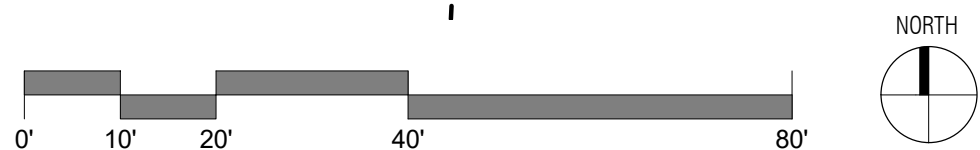
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PROJECT #:
PRE-20-0026
PLOT DATE: 2022.01.10

TREE PROTECTION PLAN

SHEET NO.:



NOTE:
REFER TO ARBORIST REPORT AND ARBORIST TREE TABLE FOR TREE REMOVAL AND REPLACEMENT CALCULATIONS.



PULTE 5 DEGREES SHORELINE

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2021.08.19	PERMIT CORRECTIONS #2

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PROJECT #: PRE-20-0026
PLOT DATE: 2022.01.10

LANDSCAPE LAYOUT PLAN
SHEET NO.:

PLANTING SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE		QTY
	Acer circinatum	Vine Maple	B&B	1.5"Cal			18
	Amelanchier alnifolia	Serviceberry	Multi-stem	1.5"Cal			42
	Chamaecyparis nootkatensis 'Glauca Pendula'	Blue Weeping Nootka Cypress	B&B		8-10' HT		10
	Cornus nuttallii x florida 'Eddie's White Wonder'	Eddie's White Wonder Dogwood	B&B	2"Cal			11
	Cornus x 'Rutgan' TM	Stellar Pink Dogwood	B&B	2"Cal			14
	Malus tschonoskii	Pillar Apple	B&B	2"Cal			21
	Pinus contorta contorta	Shore Pine	B&B		7' Ht. Min.		5
	Populus tremuloides	Quaking Aspen	B&B	1.5"Cal			9
	Rhamnus purshiana	Cascara	B&B		7' Ht. Min.		12
SHRUBS	BOTANICAL NAME	COMMON NAME	CONT				
	Cornus sericea 'Kelseyi'	Kelseyi Dwarf Redtwig Dogwood	5 gal				18
	Garrya elliptica	Coast Silktassel	5 gal				23
	Gaultheria shallon	Salal	2 gal				587
	Kalmia latifolia 'Minuet'	Minuet Mountain Laurel	5 gal				44
	Lonicera pileata	Privet Honeysuckle	2 gal				76
	Myrica californica	Pacific Wax Myrtle	5 gal				191
	Parthenocissus tricuspidata	Japanese Creeper	1 gal				17
	Paxistima myrtifolia	Oregon Boxwood	2 gal				84
	Philadelphus lewisii	Wild Mockorange	5 gal				32
	Polystichum munitum	Western Sword Fern	1 gal				1,072
	Ribes sanguineum	Red Flowering Currant	5 gal				11
	Ribes sanguineum 'White Icicle'	White Icicle Flowering Currant	5 gal				50
	Sarcococca confusa	Sweetbox	3 gal				58
	Viburnum davidii	David Viburnum	5 gal				176
	Viburnum tinus 'Spring Bouquet'	Spring Bouquet Laurustinus	5 gal				92
GRASSES	BOTANICAL NAME	COMMON NAME	CONT				
	Carex pensylvanica	Pennsylvania Sedge	3 gal				44
	Deschampsia cespitosa 'Goldtau'	Gold Dew Tufted Hair Grass	1 gal				438
BIORETENTION	BOTANICAL NAME	COMMON NAME	CONT				
	Cornus sericea	Red Twig Dogwood	1 gal				5
VINES	BOTANICAL NAME	COMMON NAME	CONT				
	Parthenocissus quinquefolia 'Purple Falls'	Virginia Creeper	1 gal				4
GROUND COVERS	BOTANICAL NAME	COMMON NAME	CONT				
	Arctostaphylos uva-ursi	Kinnikinnick	1 gal			18" o.c.	862 sf
	Ceanothus gloriosus 'Point Reyes'	Point Reyes Ceanothus	1 gal			18" o.c.	1,864 sf
	Epimedium x perralchicum 'Frohnleiten'	Frohnleiten Epimedium	1 gal			18" o.c.	2,347 sf
	Mahonia repens	Creeping Mahonia	1 gal			18" o.c.	1,311 sf
	Oxalis oregana	Redwood Sorrel	1 gal			18" o.c.	186 sf
	Pachysandra terminalis	Japanese Spurge	1 gal			18" o.c.	2,092 sf
	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	1 gal			24" o.c.	405 sf
	Prunus laurocerasus 'Mount Vernon'	Mount Vernon Laurel	1 gal			18" o.c.	2,981 sf

Attachment 2B

Board & Vellum

ARCHITECTURE AND DESIGN

115 15th Ave E, Suite 100
Seattle, WA 98112
info@boardandvellum.com | 206.707.8895



PULTE 5 DEGREES SHORELINE

PROJECT ADDRESS:
14704 MERIDIAN AVE N
SHORELINE, WA 98133

OWNER:
PULTE HOMES
3535 FACTORY BLVD SE
BELLEVUE, WA 98006

REVISION	DATE	DESCRIPTION
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ISSUANCES

DATE	DESCRIPTION
2020.08.07	BUILDING PERMIT SET
2021.04.23	PERMIT CORRECTIONS #1
2021.07.27	PRICING SET
2021.08.19	PERMIT CORRECTIONS #2

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BOARD & VELLUM PROJECT #: 2019132.00
PROJECT #: PRE-20-0026

PLOT DATE: 2022.01.10

ALL BUILDINGS

PLANTING SCHEDULE

SHEET NO.:

L2.0



PROJECT ADDRESS:
14704 MERIDIAN AVENUE

OWNED.

REVISION	DATE	DESCRIPTION
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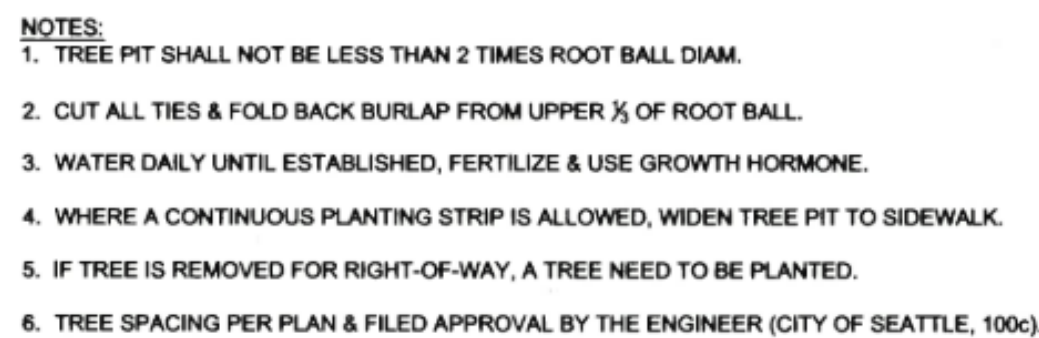
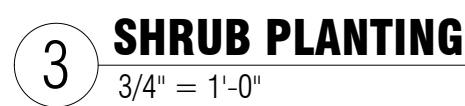
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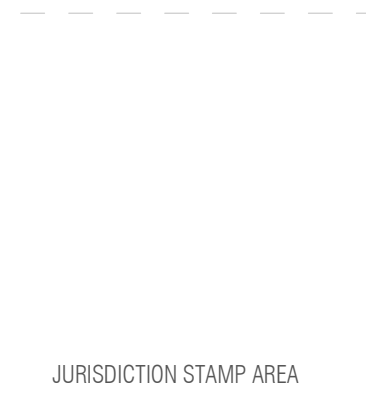
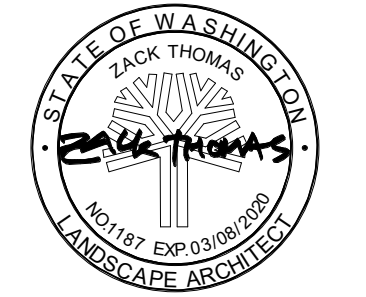
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SHEET NO.

L2.1





PULTE 5 DEGREES
SHORELINE

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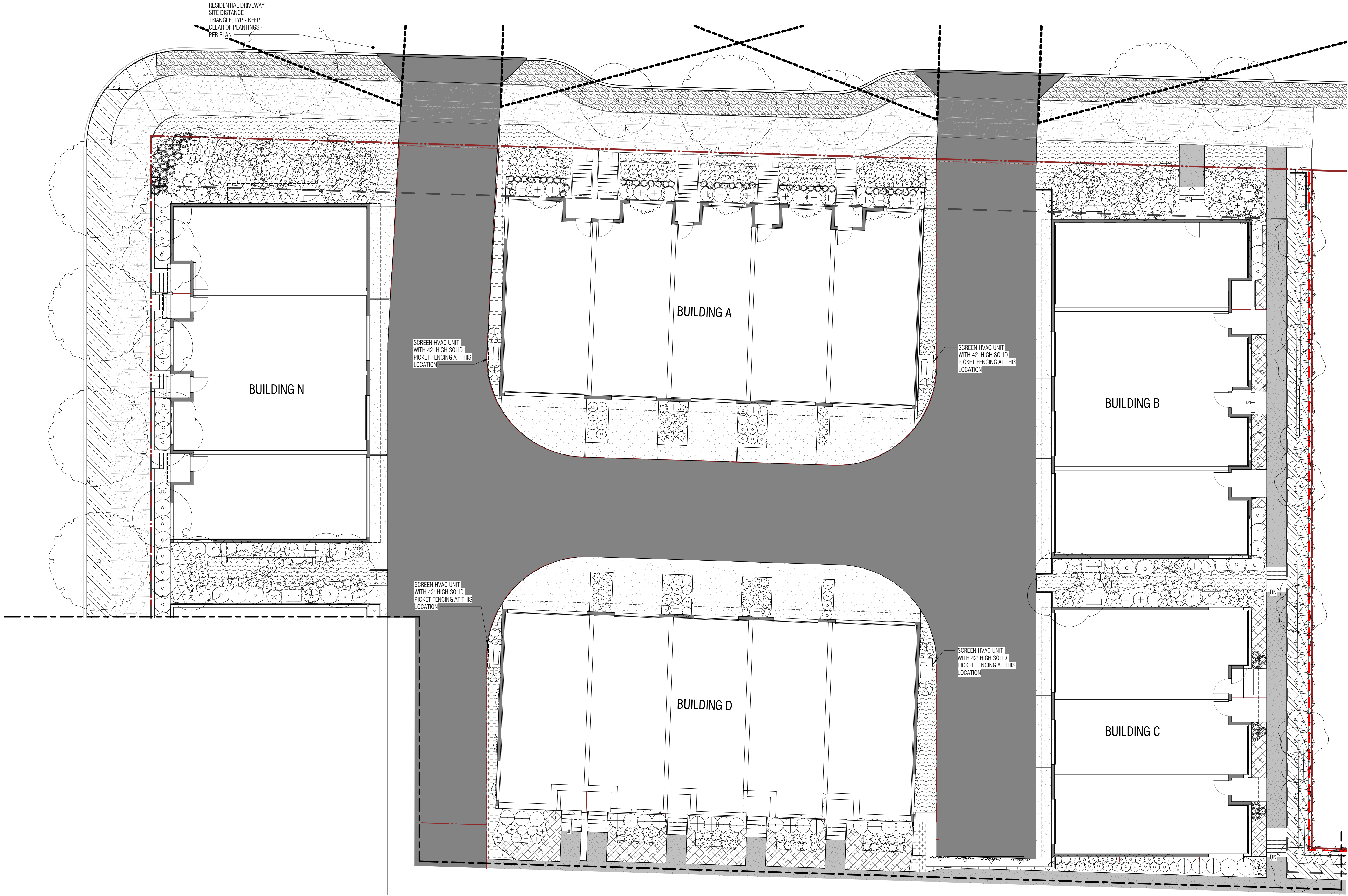
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BOARD & VELLUM PROJECT #: 2019132.00
PROJECT #: PRE-20-0026
PLOT DATE: 2022.01.10

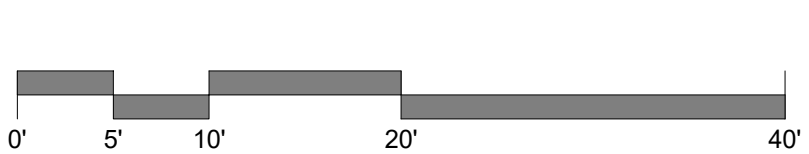
PLANTING PLAN -
QUADRANT 1

SHEET NO.:

L2.2



1 PLANTING PLAN - QUADRANT 1
1" = 10'-0"





JURISDICTION STAMP AREA

PULTE 5 DEGREES SHORELINE

PROJECT ADDRESS:
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SHORELINE, WA 98133

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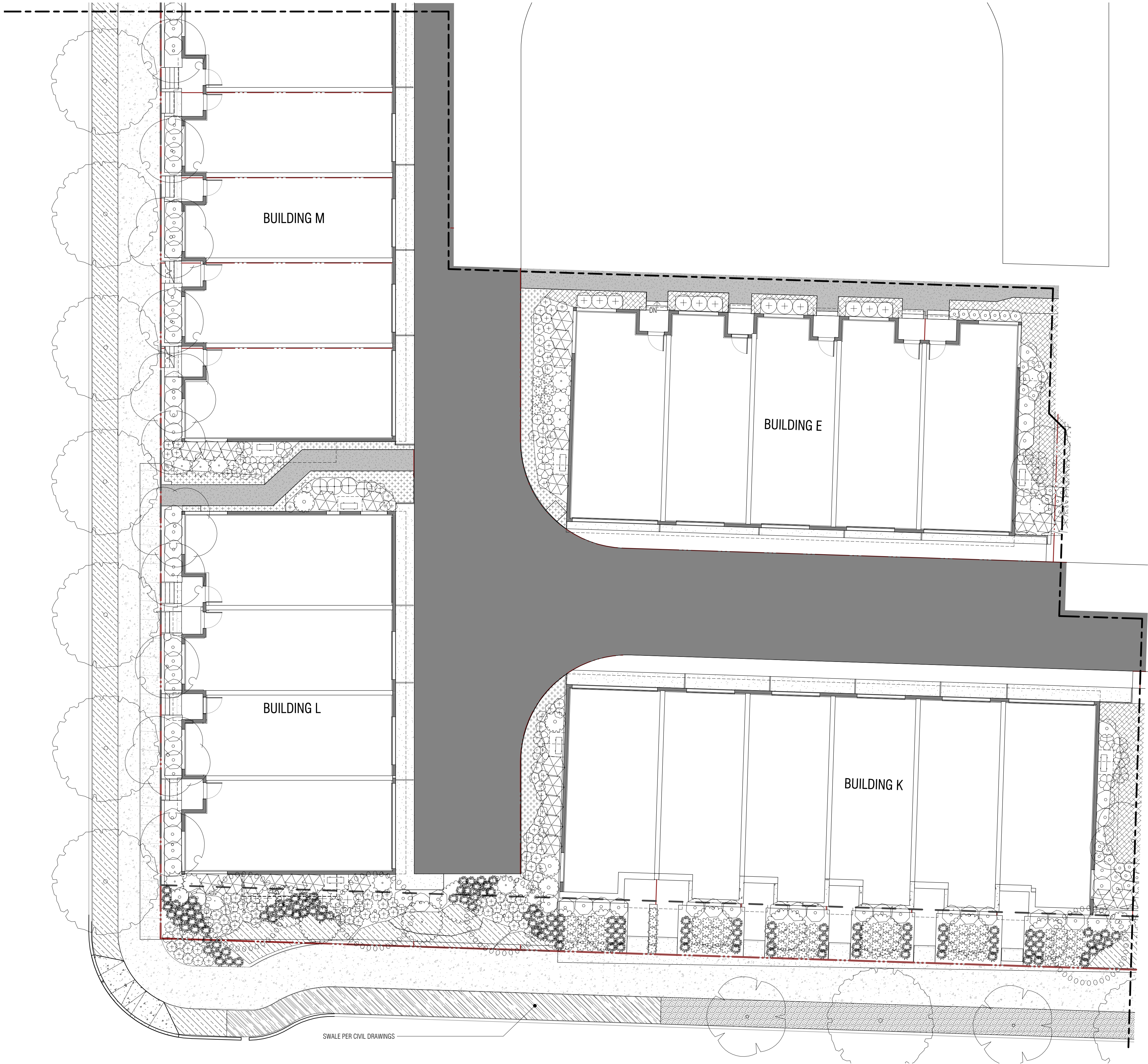
BOARD & VELLUM PROJECT #: 2019132.00
PROJECT #: PRE-20-0026

PLOT DATE: 2022.01.10

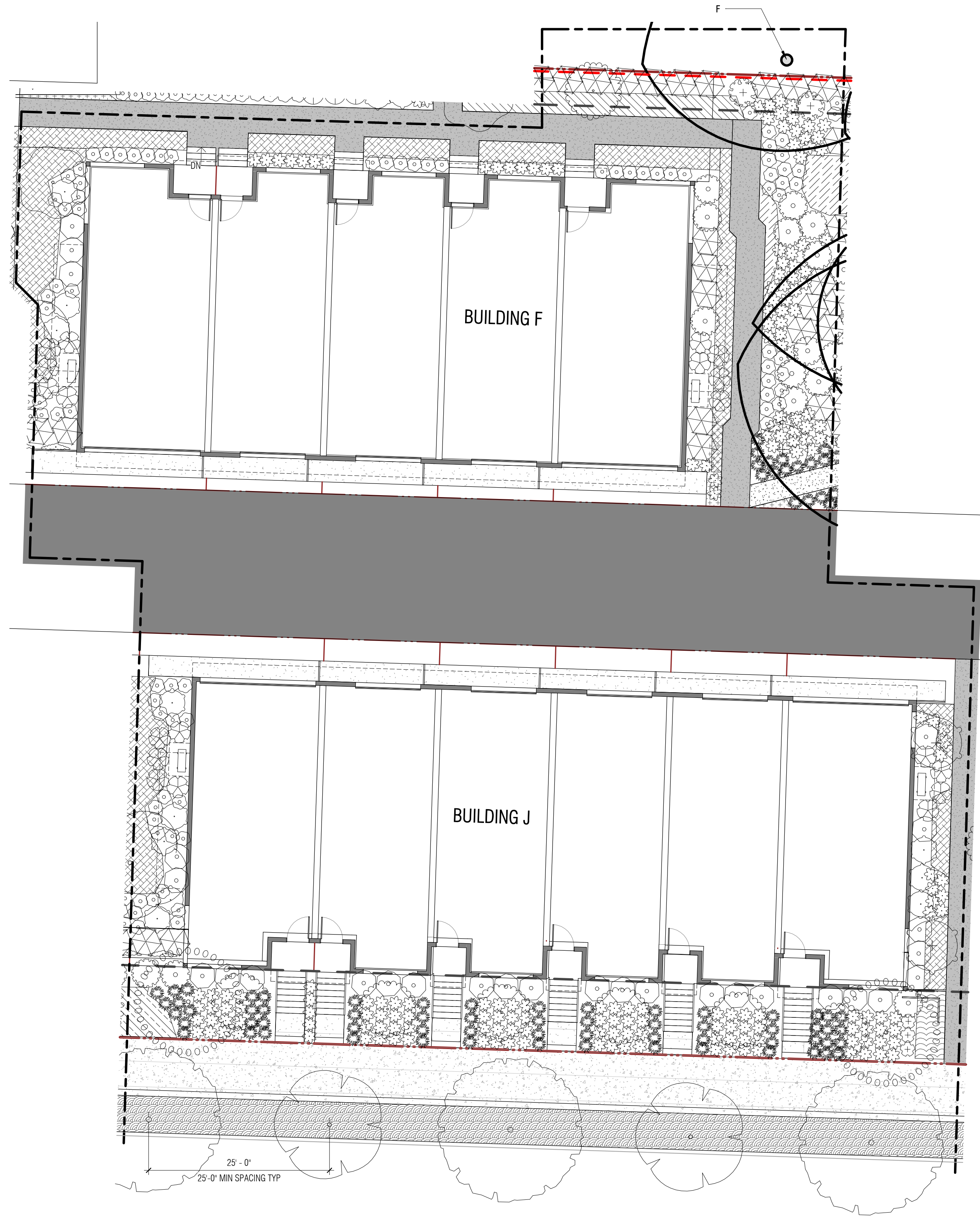
PLANTING PLAN - QUADRANT 2

SHEET NO.:

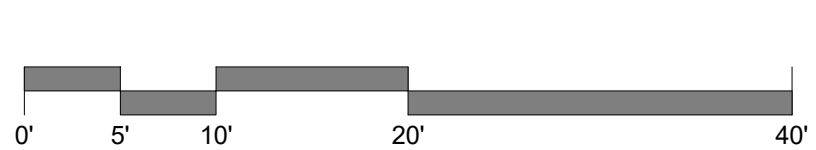
L2.3



1 PLANTING PLAN - QUADRANT 2
1" = 10'-0"



1 **PLANTING PLAN - QUADRANT 3**
1" = 10'-0"



**PULTE 5 DEGREES
SHORELINE**

PROJECT ADDRESS:
14704 MERIDIAN AVE N
SHORELINE, WA 98133

OWNER:
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3535 FACTORY BLVD SE
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ORIGINAL SHEET SIZE: 8.5" X 11"

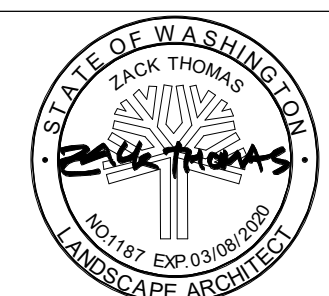
BOARD & VELLUM PROJECT #: 2019132.00
PROJECT #: PRE-20-0026

PLOT DATE: 2022.01.10

ALL BUILDINGS

**PLANTING PLAN -
QUADRANT 3**

SHEET NO.:



PULTE 5 DEGREES SHORELINE

PROJECT ADDRESS:
14704 MERIDIAN AVEN
SHORELINE, WA 98133

OWNER:
PULTE HOMES
33535 FACTORIA BLVD SE
BELLEVUE, WA 98006

REVISION	DATE	DESCRIPTION
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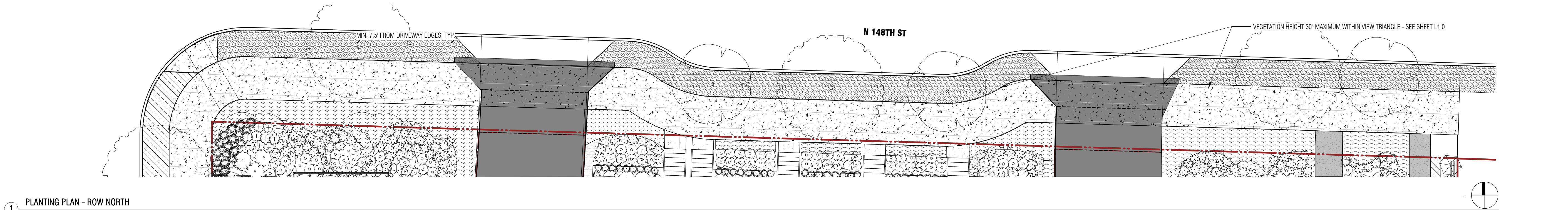
BOARD & VELLUM PROJECT #: 2019132.00
PROJECT #: PRE-20-0026

PLOT DATE: 2022.01.10

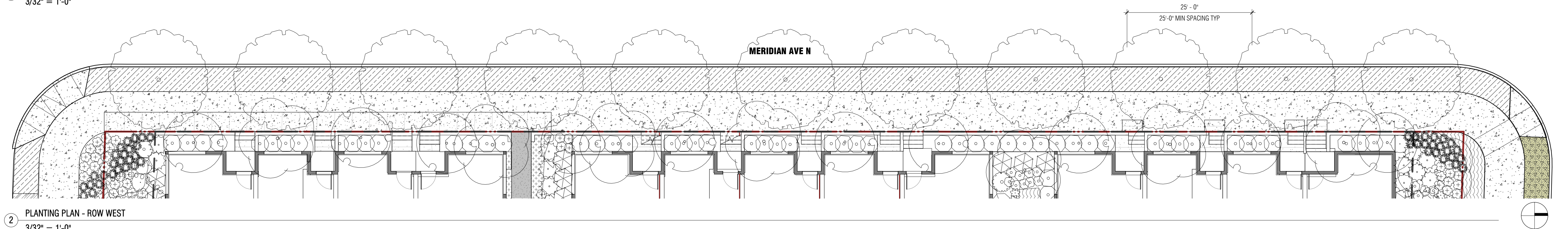
ALL BUILDINGS

PLANTING PLAN - QUADRANT 4

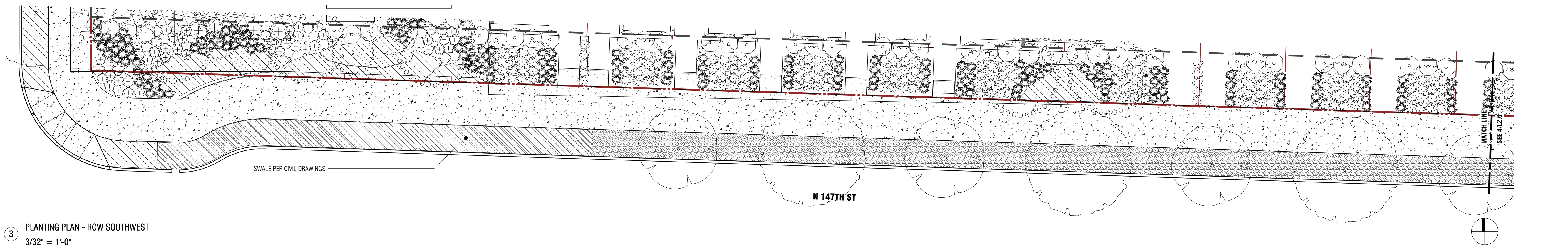
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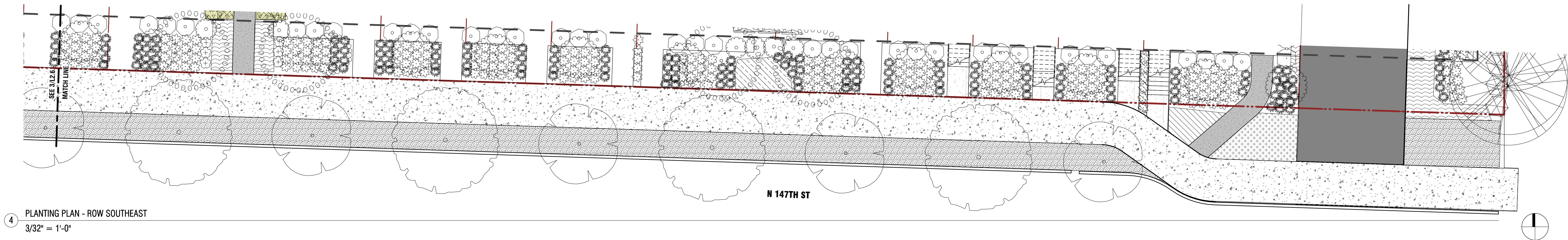
1 PLANTING PLAN - ROW NORTH
3/32" = 1'-0"



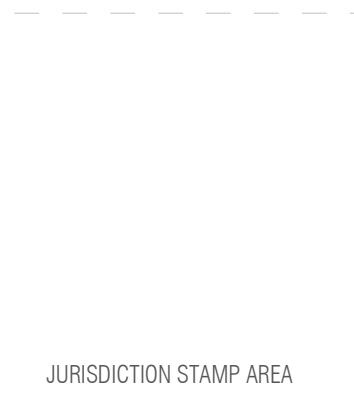
2 PLANTING PLAN - ROW WEST
3/32" = 1'-0"



3 PLANTING PLAN - ROW SOUTHWEST
3/32" = 1'-0"



4 PLANTING PLAN - ROW SOUTHEAST
3/32" = 1'-0"



**PULTE 5 DEGREES
SHORELINE**

PROJECT ADDRESS:
14704 MERIDIAN AVE N
SHORELINE, WA 98133

OWNER:
PULTE HOMES
3535 FACTORY BLVD SE
BELLEVUE, WA 98006

REVISION	DATE	DESCRIPTION
2	2021.08.19	PERMIT CORRECTIONS #2
1	2021.04.23	PERMIT CORRECTIONS #1

ISSUANCES

DATE	DESCRIPTION
2020.08.07	BUILDING PERMIT SET
2021.04.23	PERMIT CORRECTIONS #1
2021.07.27	PRICING SET
2021.08.19	PERMIT CORRECTIONS #2

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ORIGINAL SHEET SIZE IS 24"x36"

BOARD & VELLUM PROJECT #: 2019132.00
PROJECT #: PRE-20-0026
PLOT DATE: 2022.01.10

PLANTING PLAN - ROW

SHEET NO.:

MERIDIAN AVENUE



1 EXTERIOR LIGHTING PLAN

1" = 20'-0"



**PULTE 5 DEGREES
SHORELINE**

PROJECT ADDRESS:
14704 MERIDIAN AVENUE
SHORELINE, WA 98133

OWNER:
PULTE HOMES
3535 FACTORIA BLVD SE
BELLEVUE, WA 98006

REVISION	DATE	DESCRIPTION
1	2021.04.23	PERMIT CORRECTIONS #1

ISSUANCES

DATE	DESCRIPTION
2020.08.07	BUILDING PERMIT SET
2021.04.23	PERMIT CORRECTIONS #1
2021.07.27	PRICING SET
2021.08.19	PERMIT CORRECTIONS #2

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ORIGINAL SHEET SIZE IS 24"x36"

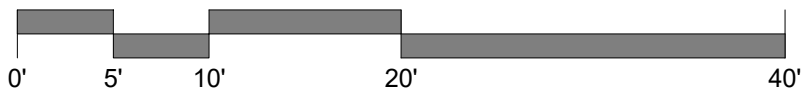
BOARD & VELLUM PROJECT #: 2019132.00

PROJECT #: PRE-20-0026

PLOT DATE: 2022.01.10

EXTERIOR LIGHTING PLAN

SHEET NO.:



L4.0

Pulte 5 Degrees Townhomes Preliminary Formal Subdivision PLN20-0139

Hearing Examiner Public Hearing
January 18, 2022



Property Information

Attachment 23
Exhibit 23

- Addresses: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, and 14710 Meridian Ave N
- Parcel #s: 7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060
- Combined Lot Size: 106,291 square feet (2.44 acres)

Property Information

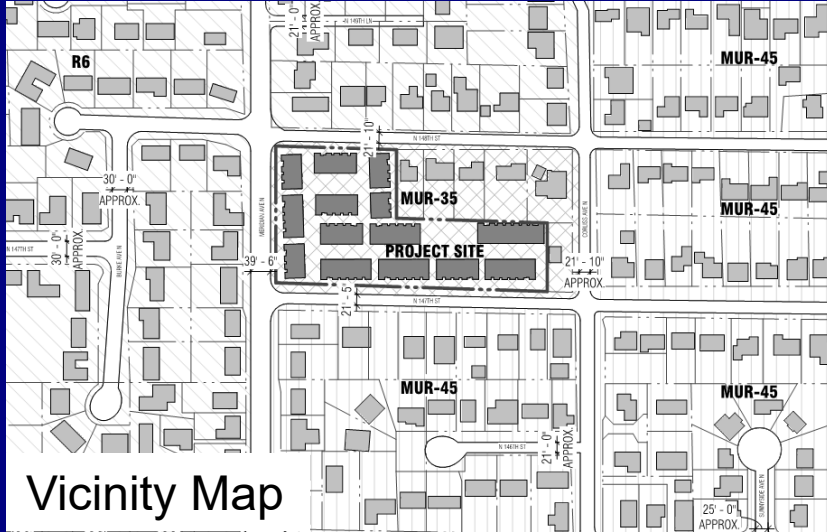
Attachment 23
Exhibit 23

- Zone: Mixed-Use Residential 35' (MUR-35')
- Comprehensive Plan Designation: Station Area 3
- Neighborhood: Parkwood



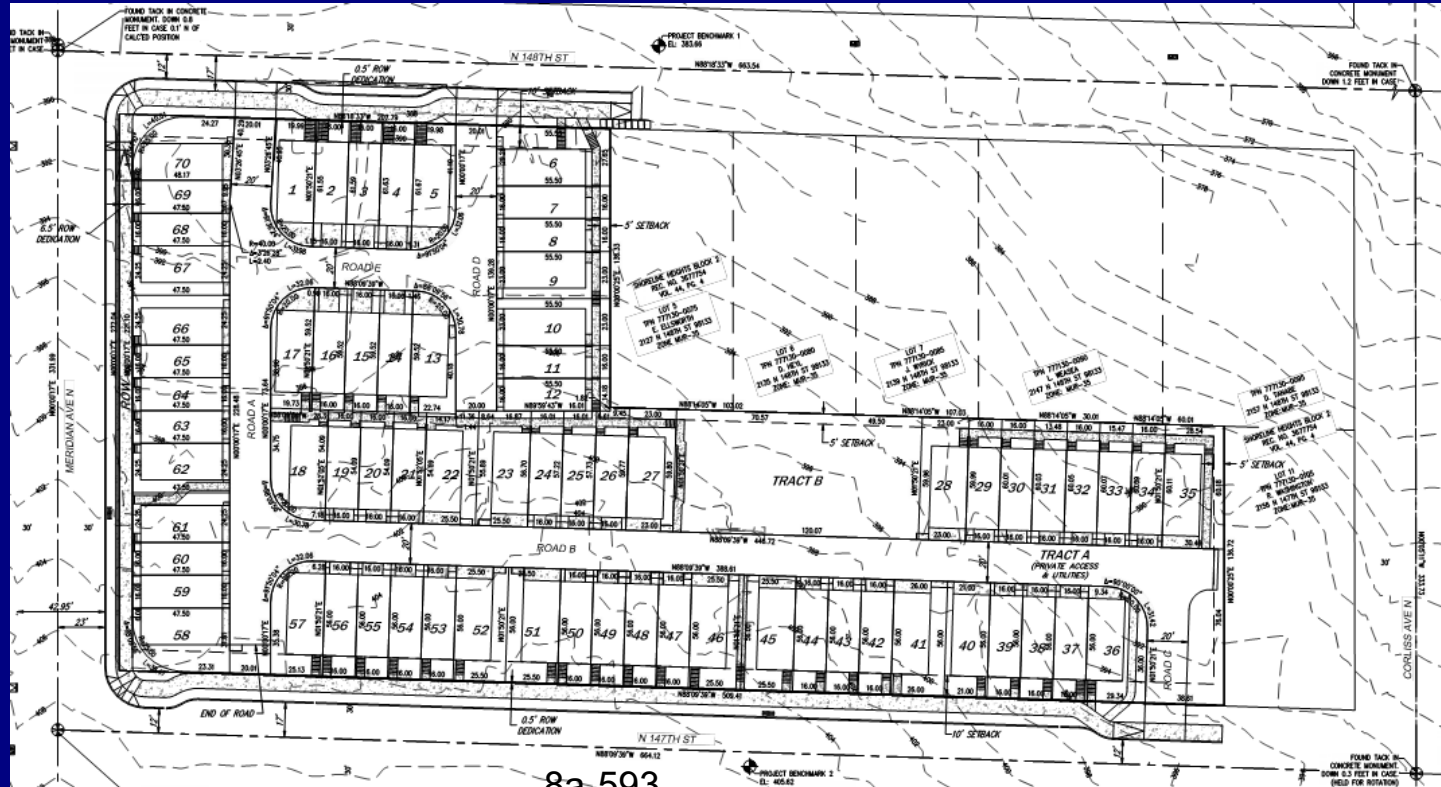
Property

Attachment 23
Exhibit 23



Proposal

Attachment 23



Process History

- Pre-Application Meeting: March 10, 2020
- Neighborhood Meeting: April 1, 2020
- Application Submitted: September 23, 2020
- Complete Application: October 19, 2020
- Notice of Application: October 22, November 23 and December 7, 2020
- SEPA Determination of Nonsignificance (DNS): November 22, 2021
- Notice of January 18 Public Hearing: January 3, 2022

Public Comment

- Increase in density
- Tree removal and protections
- Parking and traffic

Agency Comment

- Comment stated that any project involving demolition is subject to PSCAA regulations and outlined applicable regulations with a website link
- Demolition permits have been issued and a copy of the PSCAA Asbestos/Demolition Notification was provided for each property

Decision Criteria

Attachment 23
Exhibit 23

Environmental (20.30.410(B)(1))

- a) The property does not contain critical areas. Subdivision will comply with tree clearing/site development standards.*
- b) Significant amount of earth removal proposed for construction. All lots are served by common vehicle access drives.*
- c) No hazardous conditions on site or in vicinity.*
- d) LID techniques employed, as required under 2014 Dept. of Ecology Manual and 2020 Engineering Development Manual.*



Decision Criteria

Attachment 23
Exhibit 23

Lot and Street Layout (20.30.410(B)(2))

- a) Unit lot boundaries will contain the necessary footprint for an attached single-family home and a portion of landscaping, walkways and driveways into private garages.*
- b) Fire/Public Works approved access configuration.*
- c) No lot width/area standards in MUR-35. Footnote 2 allows for modifications for unit lot subdivisions.*
- d) Frontage improvements required along Meridian Ave N and N 147th and 148th Streets*



Decision Criteria

Dedications and Improvements (20.30.410(B)(3))

- a) *Right-of-way dedication easement required:*
 - *Meridian Ave N: 6.5 feet*
 - *147th St: 0.5 feet*
 - *148th St: 0.5 feet*
- b) *No dedication of park land is required.*
- c) *Frontage improvements required along Meridian Ave N and N 147th and 148th Streets*

Decision Criteria

Attachment 23
Exhibit 23

Unit Lot Subdivision (20.30.410(B)(4))

- b) *All applicable standards at time of vesting (10/19/20) are being met as proposed.*
- c) *Individual unit lots have modified hardscape coverage and setback requirements – some lots will have 97% hardscape and all will have 0' setbacks on at least one side.*
 - *Site overall meeting development standards for MUR-35.*
- d) *Shared access and utilities easements will be established as part of this subdivision.*
 - *All covenants, restrictions, responsibilities shall be recorded prior to final plat OR noted on face of plat*
- e) *All parking located within each unit lot (proposed townhome garages).*
- f) *A note on the final plat will indicate development limitations of unit lot subdivision.*
- g) *Declaration of Binding Covenant for ULS shall be recorded prior to final plat.*



Conclusions

Attachment 23
Exhibit 23

- The proposed subdivision:
 - Has met applicable requirements of the SMC, specifically Title 20 (Development Code).
 - Will make appropriate provisions for public health, safety, and welfare.
 - Will serve the public use and interest.

Recommendation

The Shoreline Planning & Community Development Department recommends **APPROVAL** of the Preliminary Formal Subdivision application PLN20-0139, subject to conditions.



Kendyl Hardy

From: Kathleen Russell <krussell@russell-gordon.com>
Sent: Tuesday, January 18, 2022 8:42 PM
To: Hearing Examiner
Subject: [EXTERNAL] Pulte 5 Degrees PLN20-0139 comment - Kathleen Russell 1/18/22

WARNING: The sender of this email could not be validated and may not match the person in the "From" field.

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kathleen Russell
Resident of Shoreline
On behalf of Save Shoreline Trees

I am here this evening to speak for the trees at the Pulte "5 Degrees" townhouse project in the Parkwood neighborhood of Shoreline. 67 tall mature trees on-site will be cut down, and an additional 12 right-of-way public street trees will be removed. This is a total of 79 trees, a substantial number of healthy trees. When one reads the actual list of trees in Exhibit 12, the tree retention calculation worksheet, the word "remove" "remove" "remove" is applied individually to each of these 67 trees, there is the realization of how devastating this will be to the Parkwood neighborhood, the City of Shoreline, and beyond. Of the 67 on-site trees, 54 are Douglas firs. Douglas firs that measure 44" DSH; 37" DSH; 36" DSH; also, many Western redcedar; and, Pacific dogwood, grand fir, and bigleaf maple.

Our extensive community of tree supporters acknowledge these trees and appreciate all of the benefits these trees have provided over the last 40, 50, 60 years. Benefits of clean air, shade, habitat for birds and wildlife. We acknowledge the wonder of these trees that connect us to nature, trees that are truly remarkable. These are the benefits that will be lost when these trees are cut down. We understand that "new" trees will be planted but new tree replacements do not equal the mature trees now in their prime of collecting and storing carbon. In Exhibit 7, titled "Neighborhood Summary", the applicant, Pulte Homes, notes that the trees to be cut down are...*(quote)* "unfortunately in the wrong location."... The trees are "in the wrong location..." We hope in the future, developers, architects and administrations will recognize the significant value of trees and will design structures and buildings around the trees. We hope in the future there will be the realization that trees and housing can co-exist. These trees are not in the "wrong place", it is humans who are making wrong decisions.

Since Hearing Examiner Reeves asked if there were any code changes, I do have a question regarding the tree replacement code Exception 20.50.360 (C)(b), in existence in Oct. 2020. This code was in discussion by Council and the tree replacement code 20.50.360(C)(b) changed in Dec. 2020 including a fee-in-lieu component. This relates to the reduction of replacement trees authorized by the Director (Exhibit 13) from 139 replacement trees, required by code, reduction to 110 replacement trees, a reduction of 29 replacement trees. My question is why was this project vested under Oct 19, 2020 code Exception 20.50.360 (C)(b) and not under the Dec 2020 code Exception 20.50.360(C)(b)? It seems PLN20-0139 subdivision applications and reviews continued into 2021. Thank you.

Attention Hearing Examiner:

The below verbal comment presented at the Pulte Home (5 Degree project) Hearing dated January 18, 2022 is now designated Exhibit #26 by you.

Nancy Morris, Shoreline resident (Introduction).

In the near future the Shoreline community may lose many significant trees at the Pulte Home 5 Degree site unless an effort is made to design around the mature landscape as much as possible to save many more mature trees. If this effort is not taken, vast destruction of trees will take place while birds are still nesting and utilizing this urban forest habitat in critical times from February 1 to September 1. I do appreciate Director Markle's letter to the applicant Pulte Homes regards delaying or monitoring the cutting of trees used by Northwest bird species from February 1 until early August, but better yet to save more trees and stop all removal of trees until September 1. Spotting the bird species living in these mature conifers will be next to impossible and relocating nests is not a viable method to lower bird mortality.

There are native and migratory bird species coming to our area into increasingly hostile environments that can eventually lead to their extinction. And why is it important to care about our wildlife and birds? The Center For Biological Diversity states: "Birds occur in nearly every habitat on the planet and are often the most visible and familiar wildlife to people across the globe. As such, they provide an important bellwether for tracking changes to the biosphere. Declining bird populations across most to all habitats confirm that profound changes are occurring on our planet in response to human activities." To put it another way - as bird populations suffer and go extinct, so will humanity's own hubris finally come home to roost.

Given the present and increasing climate crisis already causing catastrophic damage, our future is looking seriously bleak if we don't change directions on how we interact with the biosphere in which we all live. Part of this is saving our urban forest canopy now – not 20 years from now, and NOT continue to adhere to old tree code standards.

I hope I live to see all policymakers and developers of the future recognize that we share the world with other species and will design developments accordingly. We need to change our building codes, side walk codes, protective tree codes to design with the landscape to preserve mature trees, and seriously address climate emergencies. We need these new standards of design now to support our biosphere, which in the end supports us.
Thank you.



c/o Janet Way
940 NE 147th St
Shoreline, WA 98155

January 20, 2022

Hearing Examiner
c/o Hearing Examiner Clerk @ hearingex@shorelinewa.gov
City of Shoreline
17500 Midvale Ave N
Shoreline, WA 98155

Subject: Addendum II to previous comment letter re Pulte Homes of Washington, Inc, Application No.: PLN20-0139, Permit Requested: Preliminary Formal Subdivision

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St; 14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065, 7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110, 7771300150, 7771300145 and 7771300060). Description of Project: Division of eleven (11) parcels of land into seventy (70) lots to facilitate development of seventy (70) townhouse units.

Dear Shoreline Hearing Examiner:

We are responding with a final comment in rebuttal to some of the testimony that was provided by the Pulte Developers at the hearing, since the record is still open.

The City of Shoreline has a very strong Stormwater Code. Low Impact Development is strongly encouraged.

The Shoreline Surface Water Manual states:

Low Impact Development. Low impact development techniques shall be employed wherever feasible consistent with the requirements of the **Stormwater** Manual.

When **low impact development** techniques are employed, the design, construction, and ongoing

*maintenance shall be consistent with the **Stormwater** Manual or with techniques approved by the director.*

***Low impact development** principles shall also be employed wherever feasible in planning, site layout, and implementation of **development** and redevelopment projects. **Low impact development** principles include management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and **stormwater** runoff.*

C. Emerging Technologies.

- 1. The use of emerging technologies is encouraged. Examples of emerging technologies include media filters, catch basin inserts, and engineered erosion control products.*
- 2. The Washington State Department of Ecology's Technology Assessment Protocol (TAPE) or Chemical Technology Assessment Protocol (CTAPE) should be consulted by project proponents to determine which emerging technologies may be appropriate for use on their project site.*
- 3. The director has the authority to review and approve the use of emerging technologies.*

The Pulte Civil Engineer, Gina R. Brooks, P.E. who spoke last in their responses, made some statements we feel are not fact based.

We were quite taken aback by her statement that “since the land is already in a single-family (area), there is no “Forested Area!” Really? Has she even been to the site? There are 80 huge trees shading the homes and providing a forest ecosystem and habitat and naturally infiltrating stormwater every year, right there.

And then she stated that it was not feasible because of the soils to implement LID techniques!

Well, in fact the City of Shoreline itself has many times deployed Public Works projects that utilize LID standards to provide excellent stormwater infiltration. This site could easily be designed with a competent and creative engineer, to deploy these techniques. If the Planning Director was to require it, it could be done

The City of Shoreline has utilized Natural Drainage systems many times to plant trees and practice water quality standards. In 2009-17 the Aurora Phase II and III was accomplished in a large area of town, along over two miles of highway, with “hard pan” soil. So, in order to allow natural drainage which would also promote healthy growth for the thousands of street trees planted, the SILVA Cells systems were constructed under all the sidewalks to allow the trees to grow without damaging the new sidewalks. The sidewalks were built with permeable pavement to allow infiltration.

Many other techniques were utilized as well, all along Aurora to allow stormwater to infiltrate naturally. This also allowed flexibility for intersections and entrances to the many businesses along Aurora, allowing business access. The project was termed the “hybrid” plan.

We want to point out that these statements on the Pulte development show a disappointing and non-scientific approach which not only doesn't meet the City's Comprehensive Plan, but it also fails to meet the City's own Stormwater Design standards and Sustainability Goals.

In our opinion, the civil engineer for Pulte should know this. If Shoreline could do this amazing LID project on Aurora Avenue, Pulte could be required to find a way to utilize some natural drainage systems after they are allowed to destroy an ecosystem of urban forest!(Please see attached Shoreline document)

[City of Shoreline Aurora Corridor Project \(shorelinewa.gov\)](http://shorelinewa.gov)

We want to be on the record pointing out this disappointing failure with huge consequences to the Parkwood neighborhood, Twin Ponds ecosystem and consequent environmental impacts to the Thornton Creek Watershed.

Apparently, the City's goals for massive density trump all other goals for livability and sustainability which are frequently touted, but not utilized when private developers want what they want.

We wish to register our objections and respectfully ask that you as Hearing Examiner, seriously consider the consequences of what will become of Shoreline's quality of life, the health and impacts to our citizens.

Please include this final comment in the record of this case.

Respectfully Submitted,

Janet Way, Chair

Shoreline Preservation Society

Root Box “Silva Cell” Systems



AUROLA
CORRIDOR
N 165TH TO N 185TH STREETS

Water quality treatments being utilized on Aurora Avenue include:



Root Boxes (“Silva Cell” Systems)



Rain Garden Planter



Bioswale



“Filterra” Bioretention Systems



Ecology Embankments



Conventional Systems

The City of Shoreline is installing root box systems throughout the N 165th – N 185th section of the Aurora Corridor Project.

This system of modular blocks holds lightly compacted healthy soils in place, promoting root and tree growth while bearing loads for above ground streetscapes.

The underground system provides stormwater management allowing filtration to remove pollutants while retaining runoff to mitigate flooding and erosion.



The City's goals in utilizing this technology are:



To promote healthy trees



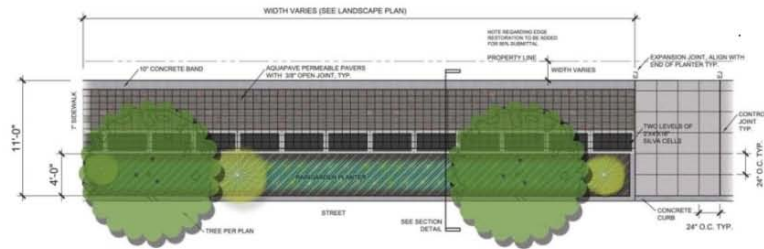
Assist with water quality



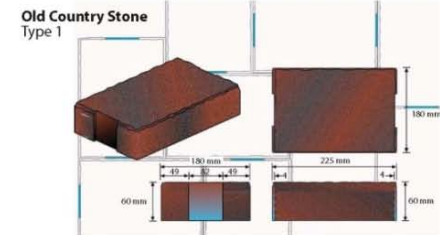
Provide bioretention

SILVA CELLS + POROUS PAVERS

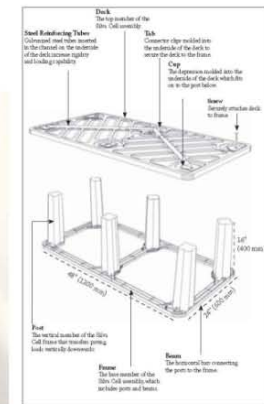
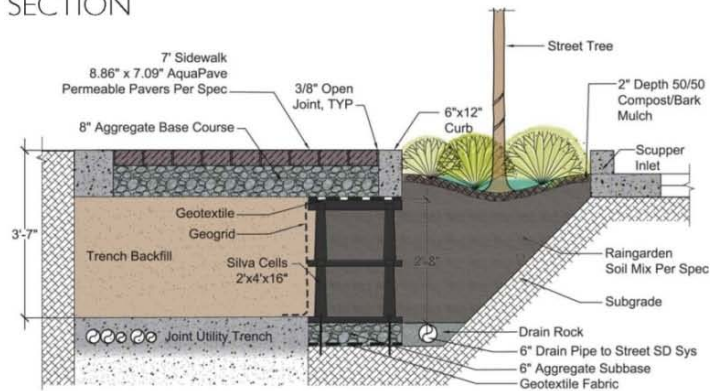
PLAN



MATERIALS



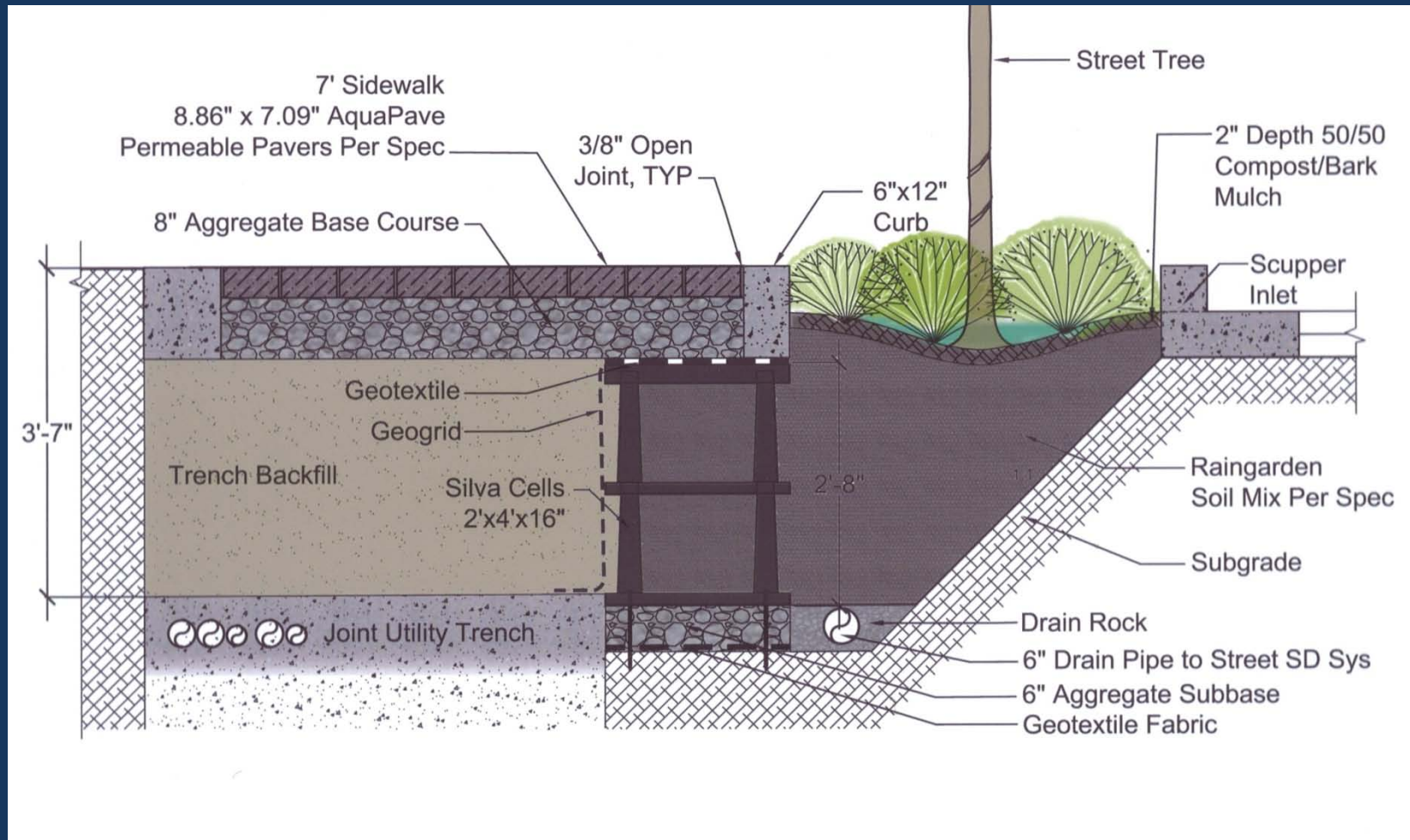
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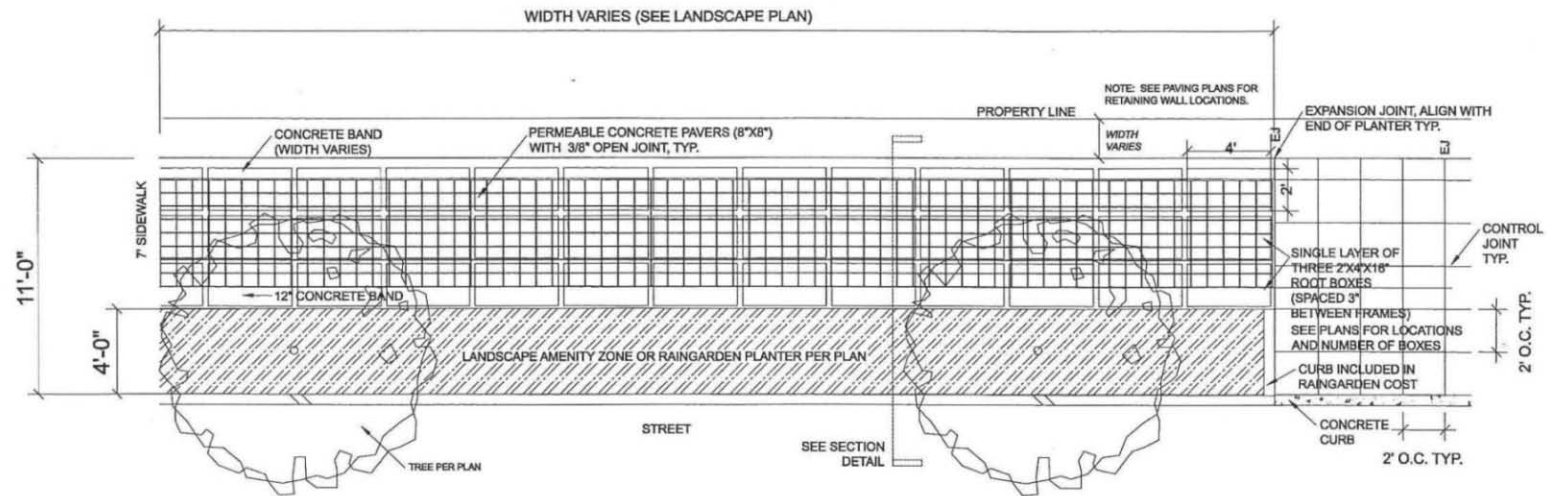
AURORA CORRIDOR IMPROVEMENT PROJECT | STORMWATER LID ELEMENTS

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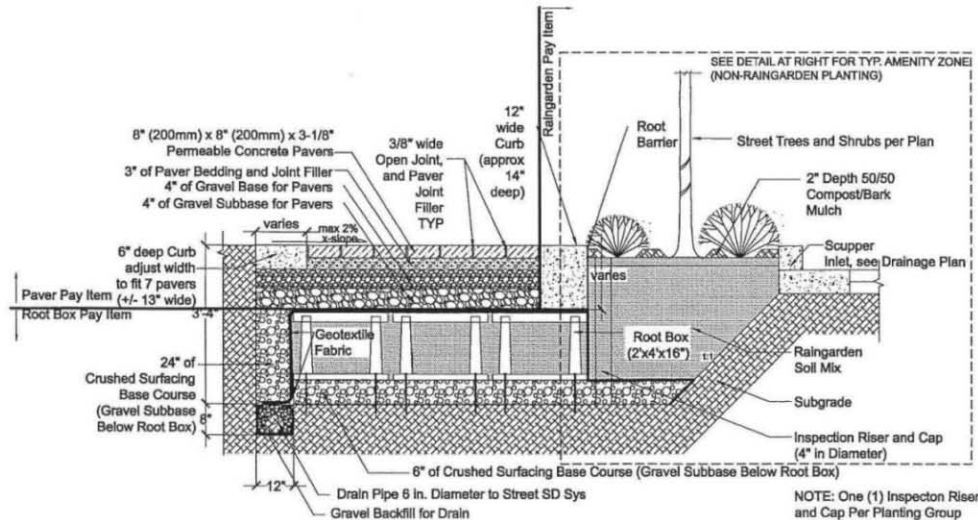




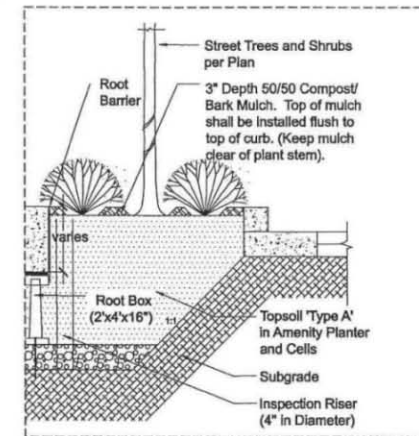
Root box cross section



1 ROOT BOX LAYOUT PLAN



2 ROOT BOX WITH RAIN GARDEN AND PERMEABLE PAVERS



3 ROOT BOX WITH AMENITY ZONE AND PERMEABLE PAVERS



A sub base aggregate is placed in the excavated trench and compacted.

8a-615



A network of frames (each with six rigid vertical posts) is positioned on the base material and anchored in place. These frames can be stacked one, two, or three high allowing for varying capacity.



Geogrid is placed around the entire system to properly hold soil in place.



“Strongbacks” are placed on top of frames. They are only required during installation and compaction of soil to help hold frames in place .



Soil is placed between the frames.



Soil is spread with shovels and compacted by foot.



The deck is put into place right after the strongback is removed.



The deck is a rigid platform with ample openings for air and water penetration. Two diagonal channels house galvanized steel tubes to help prevent deformation.



Decks are screwed to frames.



Strongbacks are moved and reused as the work progresses.



For large areas, installation follows a progression of steps.



Progression of work.



Geotextile material is placed over the entire system.



An aggregate base course is placed on top of system.



For this portion of the project, pavers spaced with gravel (allowing for infiltration) are placed over the newly installed root box system for a public sidewalk. Trees will be planted soon.

The following slides illustrate alternative stormwater management methods of capturing and retaining runoff that Shoreline is using along Aurora Avenue in addition to conventional methods of storm drains and catch basins. These methods also help to filter and clean the water they catch.



Rain garden planters



Bioswales



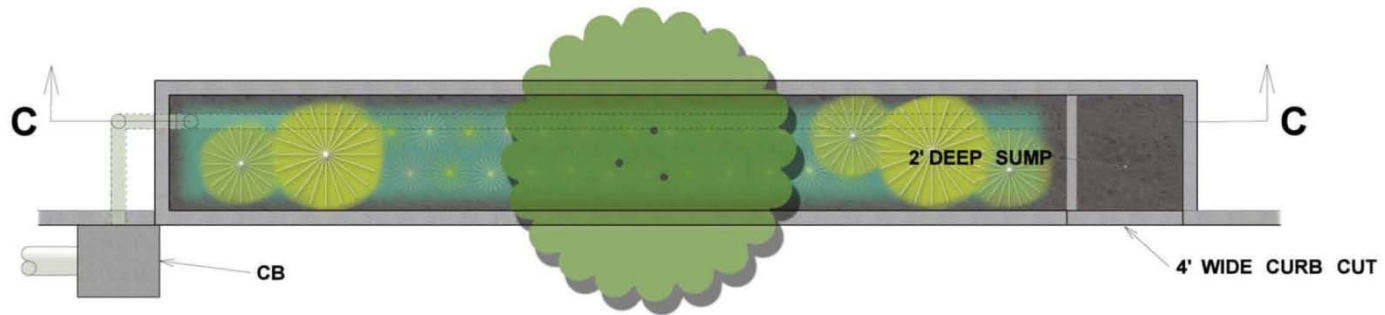
Ecology embankments



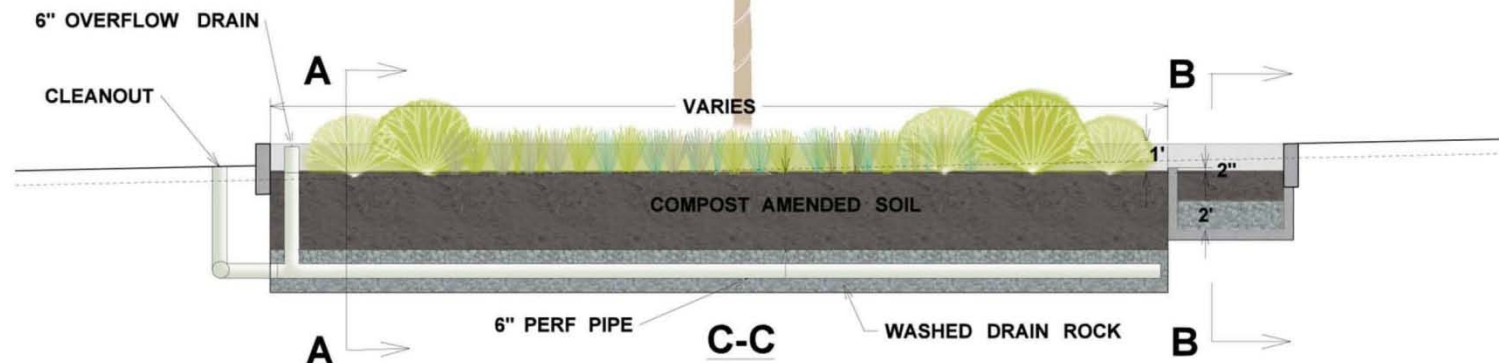
Filtterra

RAINGARDEN PLANTERS

PLAN



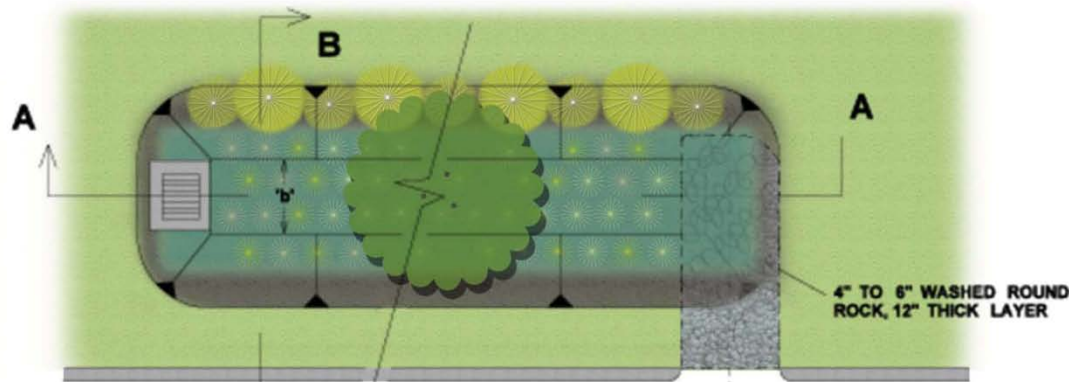
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The rain garden sits in a depression where the compost-rich soils absorb water and along with water-tolerant species help retain and filter runoff.

RAINGARDEN SWALES

PLAN

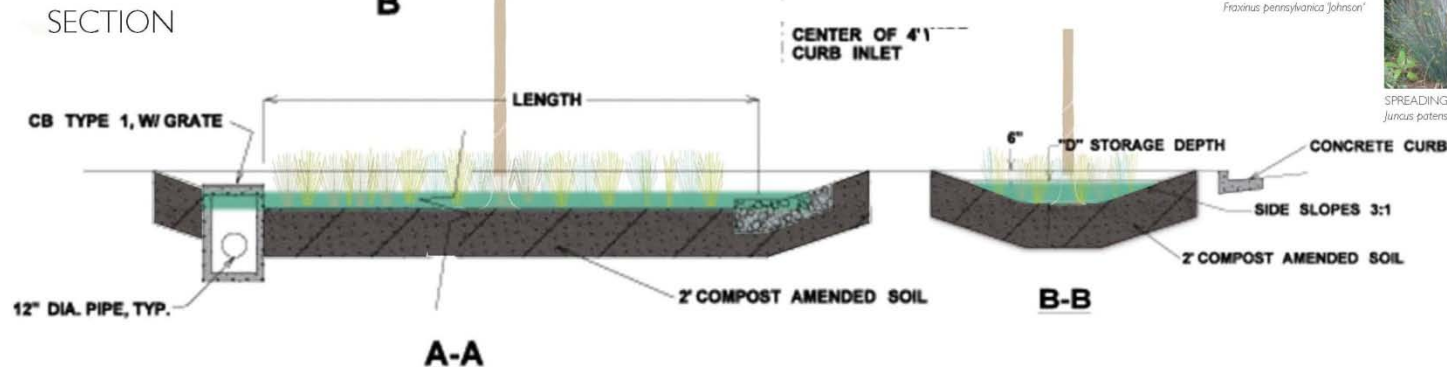


PALETTE

CREEPING OREGON GRAPE *
*Mahonia repens*SPANISH LAVENDER
Lavandula stoechas var.DAYLILY
Hemerocallis sp. var.OREGON GRAPE
Mahonia aquifoliumRED OSIER DOGWOOD *
Cornus stolonifera 'Kelsey'BLUE OAT GRASS
Helictotrichon sempervirensLEPRECAUNASH
Fraxinus pennsylvanica 'Johnston'BLUE ARCTIC WILLOW
Salix purpurea nanaDENSE SEDGE
Carex densaSPREADING RUSH
Juncus patensSLOUGH SEDGE
Carex obnuptaSAWBEAK SEDGE
Carex stipata

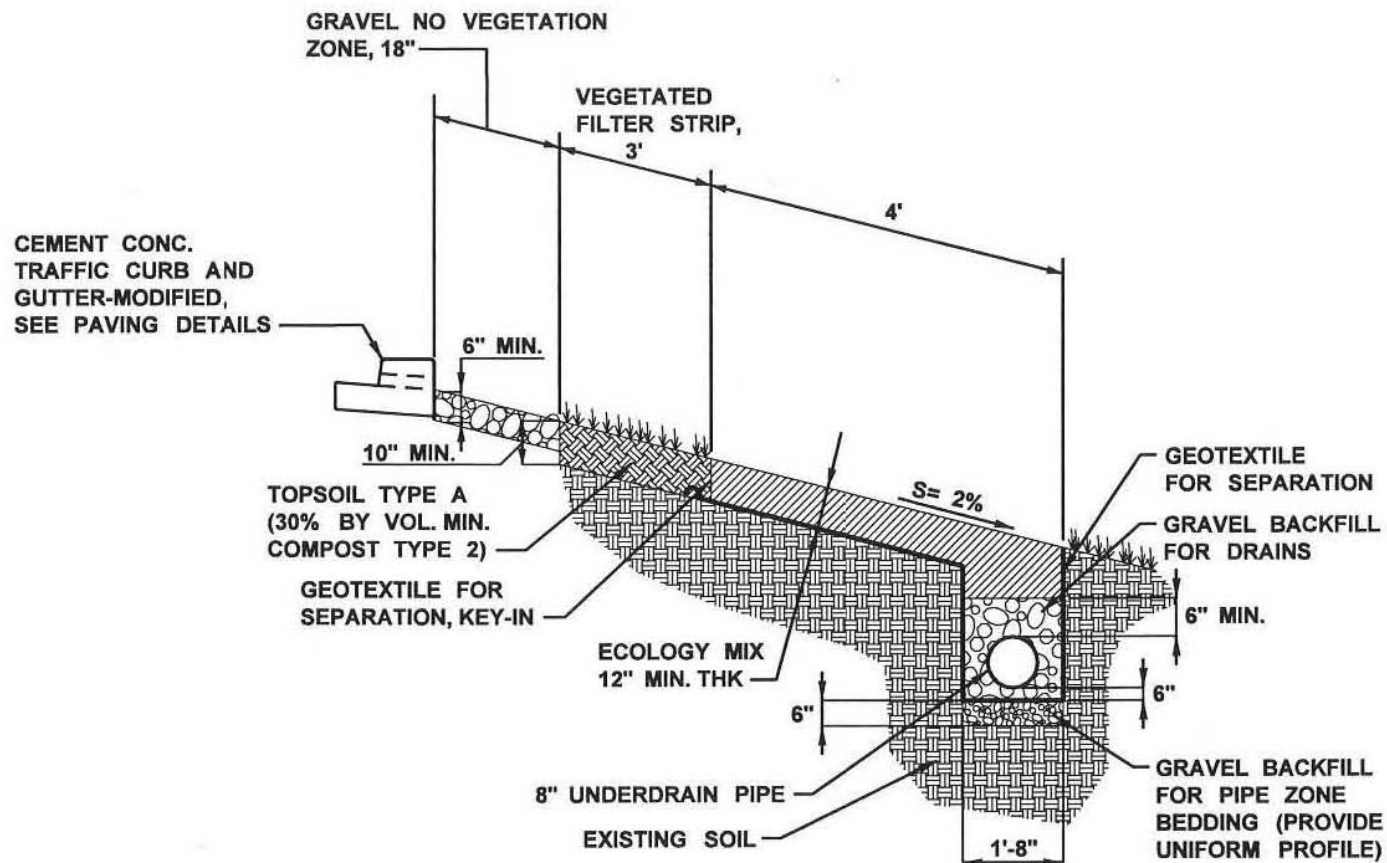
* - plants used in Phase I

SECTION

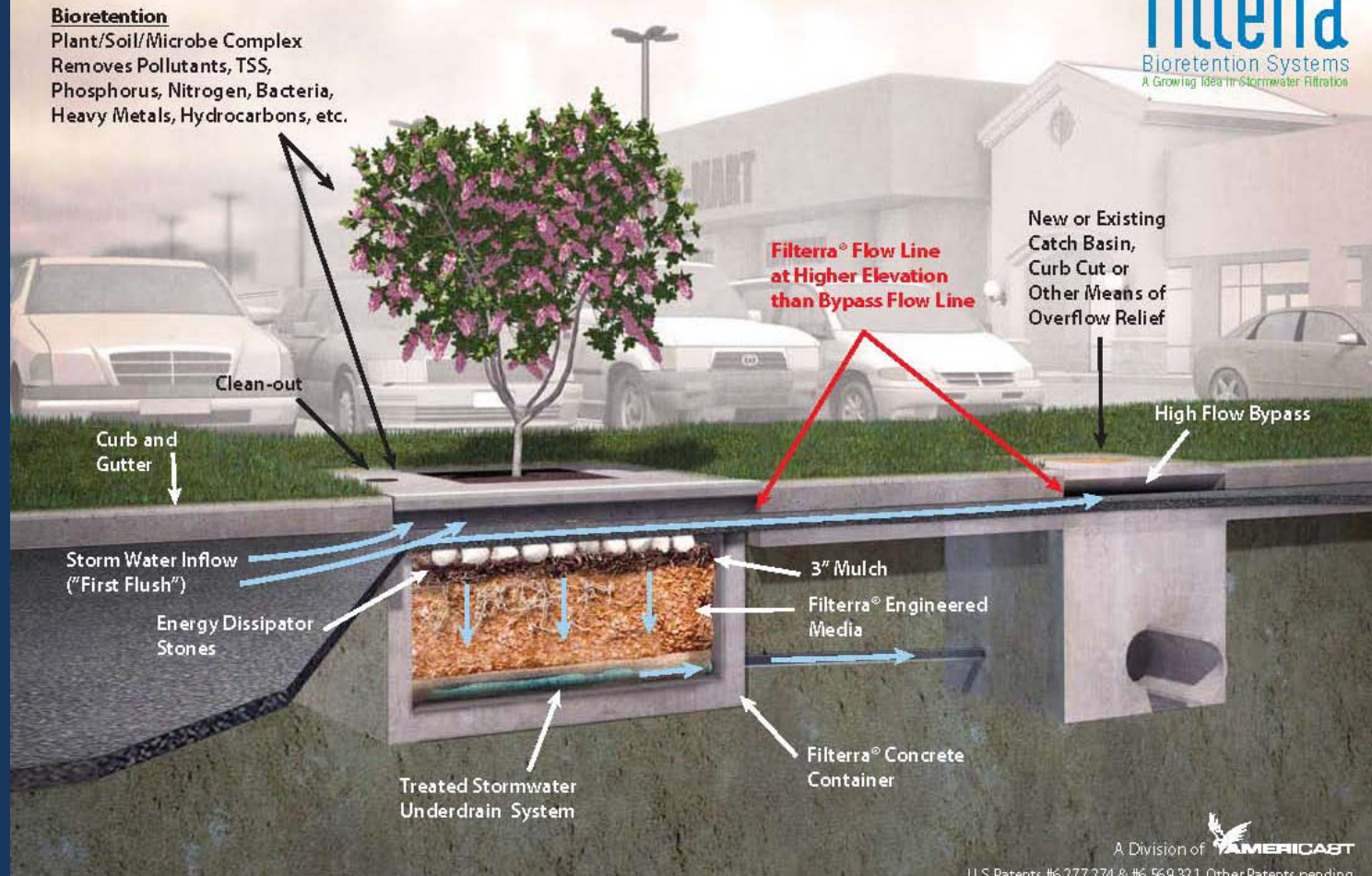


AURORA CORRIDOR IMPROVEMENT PROJECT | STORMWATER LID ELEMENTS

Unlike traditional stormwater management that involves the rapid conveyance of water, low impact development (LID) is an approach that retains and infiltrates rainfall on-site. Bioswales are one component of LID that allow infiltration and filtering of stormwater run-off.



Ecology embankments are planted adjacent to a roadway shoulder to receive "sheet flow" and more naturally filter out most pollutants in the runoff.



The Filterra system adds aesthetics to the urban landscape while catching runoff through curb cuts, removing and containing key pollutants, and releasing treated water through an underdrain system to a detention storage system.

Kendyl Hardy

From: Nancy Morris <taweyahnan@gmail.com>
Sent: Friday, January 21, 2022 4:28 PM
To: Hearing Examiner
Cc: Catherine Lee; Rachael Markle
Subject: [EXTERNAL] Addendum 2 to Jan 18 Public Hearing: Pulte 5 Degrees PLN20-0139

Importance: High

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Attention Hearing Examiner:

In previous comments submitted to you, I suggested that City of Shoreline accommodate more trees to show innovative vision when facing climate emergencies - that it can be done. To reiterate Bellevue, WA has code mandates of this type already – to construct buildings around existing mature trees. And several surrounding cities are still ahead of Shoreline in protective tree codes – this needs to change. We all must protect our mature trees — and not just give in to project architects, engineers, and developers who do not respect these goals. Mature trees will help mitigate heat-island effects, deadly heatwaves, and reduce air pollution. Young deciduous trees that even survive will take more than 20 years to do anything. The developers, landuse lawyers, and engineers could build with a visionary approach to leave a legacy for their own children, and grandchildren, and for future residents of Shoreline. Because antiquated codes say a developer can go ahead against the current best science for building design and preserving our natural habitat, does that mean they have the moral right to do so?? The City Staff of Shoreline are supposed to represent the citizens of Shoreline and majority of citizens in Shoreline want a livable future. The City of Shoreline with its own Comprehensive Plan - Community Design CD37, established a goal “to minimize the removal of existing vegetation, especially mature trees, when improving streets or developing property.” The current codes to be utilized by the Pulte 5 Degrees developer may be acceptable to city staff, but the codes are not acceptable to us the Shoreline taxpayers and the city staff should represent the Shoreline residents and taxpayers; they are not unfortunately — this is not only my opinion, but opinions of other Shoreline residents and organizations commenting on the Pulte 5 Degree development.

We need visionary City Planners and developers to work together. We cannot allow inflexible city codes for sidewalks, buildings, and tree loss to take precedent over the right path forward. I hope you can apply your authority in this matter. We are all faced with a moral imperative to take the actions necessary now for mitigating climate change.

Sincerely,

Nancy Morris, resident of Shoreline, WA

January 20, 2022

Hearing Examiner
c/o Hearing Examiner Clerk @ hearingex@shorelinewa.gov
City of Shoreline
17500 Midvale Ave N
Shoreline, WA 98155

Subject: Pulte Homes of Washington, Inc, Application No.: PLN20-0139, Permit
Requested: Preliminary Formal Subdivision

Location: 2105, 2117, and 2123 N 148th St; 2116, 2122, 2132, 2142, and 2150 N 147th St;
14704, 14710 and 14718 Meridian Ave N (Parcel #7771300055, 7771300065,
7771300070, 7771300140, 7771300135, 7771300125, 7771300115, 7771300110,
7771300150, 7771300145 and 7771300060). Description of Project: Division of eleven
(11) parcels of land into seventy (70) lots to facilitate development of seventy (70)
townhouse units.

Dear Hearing Examiner:

I would like to include a final comment regarding this proposed development. I am not
convinced that what the City of Shoreline employees are doing is legal, I am positive it:

Does NOT represent what the taxpaying citizens support as evidenced by the number of
letters you have likely received

Destroys another large stand of climate mitigating trees and the wildlife that rely upon
them

Brings to question the adage that just you can do something doesn't mean you should

If the citizens don't want, the habitat will help us cope with the impact of climate change
and support local wildlife, why is the developer not required to reduce the number of
units to accommodate protection of these mature trees?

Thank you for your consideration,

Boni Biery

Shoreline resident, taxpayer and voter

MEMORANDUM

To: City of Shoreline Hearing Examiner Andrew M. Reeves

From: Gina Brooks, P.E., Core Design

Re: PLN20-0139 (Pulte 5 Degrees) – Pulte Homes of Washington response to Janet Way Comment IV (Ex. 27)

Date: January 25, 2022

Dear Mr. Examiner,

Ms. Way's comment IV (Exhibit 27) makes three main statements:

1. The existing site is forested.
2. The project's stormwater management design does not meet the requirement for LID based on the following quoted requirements copied, from the public comment letter, below.

Low Impact Development. Low impact development techniques shall be employed wherever feasible consistent with the requirements of the **Stormwater** Manual.

Low impact development principles shall also be employed wherever feasible in planning, site layout, and implementation of **development** and redevelopment projects. **Low impact development** principles include management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and **stormwater** runoff.

3. The project can infiltrate its drainage and utilize LID. The comment goes on to say an example project "Aurora Corridor Project" essentially infiltrates its drainage within hardpan soils through the use of planting trees and installation of "Silva Cell Systems". The slides provided for the Aurora project go into detail on how raingarden planters, bioswales, Ecology embankments, and Filterra systems are utilized to filter and clean drainage.

The following are my responses to the three statements described above:

1. The existing site consists of 11 single family lots, developed with single family residences. There are some isolated treed areas dispersed through the site but, the site itself is not considered forested—i.e., a native, pre-developed condition¹—as it is covered with impervious surfaces associated with the existing residences and landscaping.
2. The project is meeting the requirement for LID to the maximum extent feasible based on the information delineated within the Storm Drainage Report (Exhibit 5g). See Sections copied below. The onsite soils (till soils) and limited treed areas result in all the below LID measures, with the exception of soil amendment, to be infeasible.

Per Section 2 of the Final Storm Drainage Report for 5 Degrees (Ex. 5g), under Minimum Requirement 5 (page 2-2) restated below in blue:

This project will employ on-site stormwater management BMPs to the extent feasible. The project is required to use List #2 from the 2014 DOE Manual to evaluate the use of BMPs for all surfaces. The first BMP, if any, that is considered feasible will be used. See Section 5.1 of this report for feasibility discussion of all BMPs presented in List #2 for this project.

Per Section 5.5.1. of the Storm Report LID Feasibility Assessment Restated below in blue.

Lawn and Landscaped Areas:

- Post-Construction Soil Quality and Depth (BMP T5.13)
 - This BMP is **feasible** and will be implemented for all disturbed pervious areas on the project site. Because this BMP will be implemented, pervious areas will be modeled as pasture in the developed condition for flow control modeling, per Chapter 5 Section BMP T5.13 of the 2014 DOE Manual.

Roofs

- Full Dispersion (BMP T5.30)
 - Full dispersion is **not feasible** for roof area because the required length of naturally vegetated flow path cannot be provided on the project site.
- Bioretention BMPs
 - Bioretention is **not feasible** because the geotechnical evaluation recommends infiltration not be used. In addition, there is no available space that allows for a safe overflow pathway to the municipal separate storm sewer system or private storm sewer system.
- Downspout Dispersion Systems (BMP T5.10B)

¹ Per the Storm Report (at page 2-2, Min. Requirement #7) and Washington State Department of Ecology 2012 Stormwater Management Manual for Western Washington as Amended in 2014 (Appx. I-G, definition of pre-developed condition), the pre-developed condition to which the stormwater discharge durations are to be matched “shall be a forested land cover.” Here, the site is not forested land; it is a developed site with significant impervious areas, and some areas with trees.

- Downspout dispersion systems are **not feasible** for roof area because the required vegetated flow path cannot be provided for splash blocks (50 feet) or gravel filled trenches (25 feet). Area on site with the available flow path length would direct runoff toward neighboring houses.
- Perforated Stub Out Connections (BMP T5.10C)
 - Perforated stub out connections are **not feasible** for the roofs area due to lack of available space taking into consideration the required 10-foot setback, space required for the facilities, and vicinity of hard surfaces. One location was re-reviewed off the southwest corner of Bldg G but, the roots from the proposed and existing trees would compromise the integrity of the system.

Other Hard Surfaces

- Full Dispersion (BMP T5.30)
 - Full dispersion is **not feasible** for other hard surfaces because the required length of naturally vegetated flow path cannot be provided on the project site.
- Permeable Pavement (BMP T5.15)
 - Permeable pavement is **not feasible** for other hard surfaces because the measured infiltration rate (0.25 inches per hour) is less than 0.3 inches per hour. See infiltration testing results from Terra Associates provided in Appendix A.
- Bioretention BMPs
 - Bioretention is **not feasible** because the geotechnical evaluation recommends infiltration not be used. In addition, there is no available space that allows for a safe overflow pathway to the municipal separate storm sewer system or private storm sewer system.
- Sheet Flow Dispersion (BMP T5.12) or Concentrated Flow Dispersion (BMP T5.11)
 - Both dispersion BMPs are **not feasible** because the required vegetated flow path cannot be provided on the project site. Area on site with the available flow path length would direct runoff toward neighboring houses.

3. The public comment is under the impression the Aurora project is infiltrating its drainage when it is instead filtering the drainage as a water quality treatment measure and collecting the drainage within a tightlined conveyance system to its discharge location. The drainage is NOT infiltrated into the native soils. The 5 Degrees project utilizes a filter media, an emerging technology biopod, to provide its required water quality treatment. The 5 Degrees project is also, amending the soils for the landscape areas within the project. The amended soils slow the generation of runoff from these surfaces which is an LID measure. The 5 Degrees project is also, retaining the grove of trees and planting new trees which are LID measures as well. In addition, structural detention has been installed on this project which will release drainage at peak rates designed to mimic the rates that would occur if the site was in a forested condition. In other words, the peak drainage rates, leaving the site, will be lower than the drainage rates that exist on the site today. From a drainage perspective, this project is benefitting the current downstream drainage infrastructure by reducing the rates currently experienced by the downstream drainage systems.

Kendyl Hardy

From: Randall Olsen <ROlsen@Cairncross.com>
Sent: Tuesday, January 25, 2022 3:47 PM
To: Kendyl Hardy; Jim Sprott
Cc: Catherine Lee
Subject: [EXTERNAL] RE: Hearing Examiner's Post-Hearing Order PLN20-0139/ Pulte Subdivision
Attachments: Memo from Gina Brooks, P.E., to Examiner Reeves Response to J. Way Comment IV (Ex. 27) (04491898-3).pdf

CAUTION: This email originated from outside of the City of Shoreline. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Hardy,

Pulte Homes of Washington has reviewed the Examiner's January 24, 2022 Post-Hearing Order and the three final public comments submitted after the January 18, 2022 public hearing (Exhibits 27, 28 and 29).

Exhibits 28 and 29 make comments similar to those already in the record, and Pulte believes that adequate responses to those comments are already included in the record, including specifically responses and statements found in the Staff Report and testimony provided at the January 18, 2022 public hearing. Pulte is submitting no additional responses to those comments.

Exhibit 27 addresses primarily stormwater drainage. Pulte's professional engineer, Gina Brooks of Core Design Inc., has provided the attached response to Exhibit 27.

With this email and the attached Memo from Ms. Brooks, Pulte has no further responses and the record can be closed.

Thank you for coordinating these final documents.

Best regards,
Randall

Randall Olsen

Attorney

Pronouns: he/him/his

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From: Kendyl Hardy <khardy@shorelinewa.gov>
Sent: Monday, January 24, 2022 5:14 PM
To: Randall Olsen <ROlsen@Cairncross.com>; Jim Sprott <jim.sprott@pultegroup.com>
Cc: Catherine Lee <clee@shorelinewa.gov>
Subject: Hearing Examiner's Post-Hearing Order PLN20-0139/ Pulte Subdivision

Attachment B

Please see the attached Post-Hearing Order from the Hearing Examiner regarding PLN20-0139/ Pulte Subdivision. The mentioned comments are attached as exhibits 27, 28, and 29. These are also uploaded online at:

<https://www.shorelinewa.gov/government/document-library/-folder-6337>.

Best,

Kendyl Hardy

Clerk to the Hearing Examiner

Shoreline City Clerk's Office

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