HABITAT TECHNOLOGIES

December 17, 2024
Revised
April 16, 2025

Ms. Dawn Markakis, Land Planner
@ CES NW Inc.
429 – 29th Street NE, Suite D
Puyallup, Washington 98372
e-mail dmarkakis@cesnwinc.com

WETLAND BUFFER ESTABLISHMENT AND ENHANCEMENT PROGRAM FOR THE DEVELOPMENT OF A NEW SINGLE-FAMILY HOMESITE Parcel 0322059088, King County

Dear Ms. Markakis,

This document details the "*Wetland Buffer Establishment and Enhancement Program*" to be implemented as a part of the development of a new single-family homesite within **Parcel 0322059088 (project site)** – Lot A as created through a recent boundary line adjustment (BLA 16-0001). The project site was approximately 1.30-acres in size, irregular in shape, and located along 143rd Place SE within an area of existing single-family development in the Youngs Lake area of King County, Washington (Figure 1).

PROJECT SITE DESCRIPTION

The project site was vacant and exhibited a primarily deciduous forest plant community with dense areas of Himalayan blackberry (*Rubus armeniacus*). A drainage corridor and associated wetland were identified generally along the northern boundary of the project site. The project site had undergone prior development actions to include clearing and grading, fencing, ditching and maintenance, culvert installation, the development of an adjacent public roadway and utilities, and the development of adjacent properties.

Directions to Project Site: From westbound on SE Petrovitsky Road turn south onto 140th Avenue SE. Continue on 140th Avenue SE to SE 192nd Street. Turn east onto SE 192nd Street and continue to 143rd Place SE. Turn south onto 143rd Place SE. The project site is to the east of 143rd Place SE.

CRITICAL AREAS DETERMINATION

The assessment and evaluation of critical areas within and immediately adjacent to the project site was completed following the methods and procedures defined in the *Corps of Engineers Wetland Delineation Manual* (1987 Manual) with the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (2010 Supplement); guidance provided for the *Washington State Wetlands Rating Worksheet* (Hruby 2008); the State of Washington Department of Natural Resources (WDNR) Forest Practice Rules (WAC 222-16-030); and King County Chapter 21A-24 (see *Critical Areas Delineation and Rating Report* dated May 24, 2022).

Based on these criteria, one (1) area within the project site was identified to exhibit all three of the established criteria for regulation as a "wetland." Additionally, one (1) area adjacent to the project site was identified to exhibit all three of the established criteria for regulation as a "wetland." One (1) area along the northern boundary of the project site was identified to exhibit characteristics typically associated with a King County "aquatic area" (stream).

WETLAND	CLASSIFICATION	WDOE TOTAL SCORE	WDOE HABITAT SCORE	KING COUNTY CATEGORY	KING COUNTY BUFFER
A	Depression/Riverine	20	6	II	150 ft
B	Depression	16	4	III	80 ft

Wetland A: Wetland A was identified entering the project site (Lot A) along the northern boundary within a shallow ditched swale. This wetland extended through Lot A to the west/northwest and exited via an installed culvert in 143rd Place SE. Offsite Wetland A exhibited areas of seasonal ponding and seasonal saturation. Offsite Wetland A was ditched by prior management actions and was noted to extend offsite to the east and west.

Offsite Wetland A was rated in 2018 and then again in 2021 utilizing the 2014 Washington State Department of Ecology *Wetland Rating Form for Western Washington* (Hruby 2014) and identified to exhibit a total functions score of 20 points (6 habitat points) (Appendix B). As such, this wetland was identified to best meet the criteria for designation as a King County Category II Wetland with a standard buffer of 150 feet inside the urban growth area.

Wetland B: Wetland B was identified within a shallow swale (approximately 1,230 sqft) within the northwestern portion of Lot B. This shallow swale exhibited seasonal saturation within 12 inches of the surface during the March 2022 site assessments. Winter and early spring hydrology supplied to this shallow swale appeared to have been recently increased following the removal of adjacent vegetation for the installation of utilities, soil compaction, and the redirection of adjacent seasonal surface water runoff. Additionally, the removal of vegetation along the 143rd Place SE Corridor (for permitted utility placement) was identified to allow seasonal stormwater from the homesites to the west of 143rd Place SE to flow across 143rd Place SE and onto the project site (a condition not present during the 2018 assessment). Wetland B exhibited a mixture of both hydrophytic and non-hydrophytic vegetation. As documented in during the prior 2018 assessment, this area

was dominated by non-hydrophytic vegetation and appeared to have been newly formed as defined utilizing the "disturbed areas methodologies" as outlined in the *Corps of Engineers Wetland Delineation Manual* (U. S. Army Corps of Engineers, 1987) with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (U. S. Army Corps of Engineers, 2010).

Wetland B as defined in the spring of 2022 was rated utilizing the 2014 Washington State Department of Ecology *Wetland Rating Form for Western Washington* (Hruby 2014) and identified to exhibit a total functions score of 16 points (4 habitat points). As such, this wetland was identified to best meet the criteria for designation as a King County Category III Wetland with a standard buffer of 80 feet in width.

Aquatic Area: An unnamed surface water drainage corridor – aquatic area - was located within Offsite Wetland A in the northern portion of Parcel 0322059088. This aquatic area had undergone prior land use actions to include culvert placements, ditching, and the development of access roadways. This aquatic area appeared best meeting the criteria for designation as a King County **Type N Aquatic Area**. The standard buffer for a King County Type N Aquatic Area is 65 feet as measured from the identified ordinary high water mark.

SELECTED DEVELOPMENT ACTION

The *Selected Development Action* for **Parcel 0322059088** focuses on the development of a new single-family homesite. Homesite development would be consistent with the King County Comprehensive Plan, local zoning, the local residential community, and the provisions of King County Chapter 21A.24. Access to the new homesite would be provided by a new driveway connection to 143rd Place SE located in the western portion of the project site. While homesite development would avoid adverse encroachment into the identified onsite wetland in the northern portion of the project site, the proposed homesite development would unavoidably encroach into the standard buffer for this wetland and the buffer for Wetland B located offsite to the south (Appendix B).

KING COUNTY CRITICAL AREAS ENCROACHMENT REGULATION

King County regulates activities in and around identified "critical areas" pursuant to Chapter 21A-24. As with the federal and state permitting requirements, the County regulations focus on avoidance and minimization of adverse impacts. For impacts that cannot be avoided or minimized the County may require compensatory mitigation to replace, restore, or enhance the physical and biological functions of the critical areas. For the development of single-family homesites within existing parcels constricted by critical areas and associated buffers the County may approve alterations to critical areas, alterations to critical area buffers, and alterations to critical area setbacks not otherwise allowed within Chapter 21A-24 as follows (21A.24.072 – Alteration Exception Alternative):

King County may approve alterations to critical areas, critical area buffers, and critical area setbacks only when all of the following criteria are met:

1. **There is no feasible alternative to the development proposal with less adverse impact on the critical area**;

   Discussion: The project site consists of a single parcel of record, approximately 1.30-acres in size, and initially created through a boundary line adjustment process (BLA#16-0001). Within all but the very southern portion, the parcel was dominated by the wetland and associated wetland buffer. Additionally, an offsite wetland to the south (Wetland B) imposes a buffer into the southern portion of the site. The proposed homesite, access driveway, and associated minimal yard areas can be developed without encroachment into the identified wetlands. However, a reduction in the wetland buffers would be unavoidable to allow for the development of this homesite at a size consistent with new homes recently built in the neighborhood. No other feasible alternative location for the homesite is possible to ensure fewer potential impacts to the wetland or associated buffer.

2. **The alteration is the minimum necessary to accommodate residential use of the property**;

   Discussion: As depicted on the proposed site plan, the homesite was to retain the maximum amount of onsite buffer area. The location of the proposed homesite development action minimizes potential adverse impacts to the identified wetland buffers as much as practical. The access drive to the homesite was relocated to the north to further minimize buffer impacts for offsite Wetland B.

3. **The approval does not require the modification of a critical area development standard established by this chapter**;

   Discussion: As depicted on the proposed site plan, the approval of the proposed homesite development action does not require a modification of the critical area development standard.

4. **The development proposal does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest**;

   Discussion: As depicted on the proposed site plan, the approval of the proposed homesite development action does not pose an unreasonable threat to the public health, safety or welfare within or adjacent to the development site and is consistent with the general purposes of this chapter and the public interest.

5. **For dwelling units, no more than five thousand square feet or ten percent of the site, whichever is greater, may be disturbed by structures, building setbacks or other land alteration, including grading, utility installations and landscaping, but not including the area used for a driveway or for an on-site sewage disposal system**;

   Discussion: As depicted on the proposed site plan, the proposed homesite development action does not exceed 5,681 square feet in development impact size.

6. **The applicant submits an approved rural stewardship plan or forest stewardship plan prepared in accordance with this chapter that addresses the development proposal and the proposed use of the property; and**

   Discussion: The project has provided a mitigation plan to address the site development proposal. Onsite mitigation in the form of buffer addition (705 sqft) and buffer enhancement for permanently impacted buffer (3,614sqft) has been provided.

7. **The proposal complies with K.C.C. 21A.24.125 and 21A.24.130.**

   Discussion: As defined below the proposed new homesite development complies with K.C.C. 21A.24.125 and 21A.24.130.

MITIGATION SEQUENCING

1. **Avoiding the impact altogether by not taking a certain action or parts of an action;**

   Discussion: As noted above, overall project planning and the creation of the new homesite reviewed a variety of potential scenarios. However, as a result of the existing wetlands and buffer sizes and location, the final plan focused on the placement of the home in the far southern portion of the project site to retain the maximum amount of buffer area. Additionally, following County Staff comments the access drive for the home was located to the north to further minimize impacts to the offsite Wetland B buffer.

   As such, adverse encroachments into the identified wetland buffers have been avoided to the greatest extent practicable while still meeting King County public health and safety requirements.

2. **Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;**

Discussion: As noted above, the project site is dominated by wetland and associated buffer areas. The developable area within the project site is limited to less than 5,681 square feet. The project has been designed to stay within the development requirements.

3. **Rectifying the impact to critical areas by repairing, rehabilitating or restoring the affected critical area or its buffer;**

   Wetland Impacts:

   The proposed homesite development would avoid any adverse impacts to either the onsite of the offsite wetlands or identified aquatic area.

   Buffer Impacts:

   The proposed homesite development would avoid adverse encroachments into the identified wetland and aquatic area buffers to the greatest extent practicable. However, encroachment into the buffer for Wetland A and offsite Wetland B would be unavoidable and be considered a "permanent buffer impacts."

   > **Permanent Buffer Impact:** Unavoidable permanent buffer impacts associated with the development of the new single-family homesite would total 3,614 square feet. Compensatory impacts mitigation would be provided through the establishment and enhancement of the existing, somewhat degraded onsite buffer area (see program outline below).

4. **Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods**

   There are no identified hazard areas within or immediately adjacent to the project site.

5. **Reducing or eliminating the impact or hazard over time by preservation or maintenance operations during the life of the development proposal or alteration;**

   Impacts to the onsite buffer area are being restored onsite through enhancement actions. A minimum of 3,614 sqft of buffer area shall be enhanced adjacent to the homesite development area.

6. **Compensating for the adverse impact by enhancing critical areas and their buffers or creating substitute critical areas and their buffers; and**

   Mitigation for the proposed project permanent impacts would be provided through onsite buffer addition (705 sqft) and the enhancement of a minimum of 3,614 sqft.

7. **Monitoring the impact, hazard or success of required mitigation and taking remedial action.**

   A five (5) year monitoring and maintenance program would be implemented following the implementation of the onsite buffer establishment and enhancement program. This five (5) year program would be based on the established performance criteria for desirable plant community establishment and with incorporate project contingencies, ongoing maintenance of potential invasive species, and annual reporting to the program's performance.

ESTABLISHMENT AND ENHANCEMENT PROGRAM BENEFITS

The overall goal of the *Wetland Buffer Establishment and Enhancement Program* is to restore a viable native plant community within the retained onsite wetland buffer areas. The establishment of viable wetland buffer plant communities shall provide enhanced structural stability; enhanced light, dust, and noise screening to protect the wetland; enhanced aquatic and terrestrial habitats; enhanced stormwater runoff quality protections; enhanced detrital support for the aquatic/terrestrial food-web; and enhanced protection from potential human encroachments.

DESCRIPTION OF THE ESTABLISHMENT AND ENHANCEMENT PROGRAM

The implementation of the *Wetland Buffer Establishment and Enhancement Program* is designed to accompany single-family homesite development and shall ensure that the unavoidable impacts (3,614 sqft) to the standard 150-foot buffer associated with Wetland A and the 80 foot buffer associated with offsite Wetland B would be fully mitigated. The primary benefits associated with the proposed program include the restoration of a viable protective wetland buffer plant community composed of existing, installed, and volunteer native shrubs. This area has been impacted by prior land uses and the understory is dominated by invasive blackberries. The selected plant species shall increase diversity and complexity within the buffer areas, while also providing increased wildlife habitats opportunities for local species (Appendix B).

1. The *Wetland Buffer Establishment and Enhancement Program* shall establish a protective buffer adjacent to the homesite development area within the project site.

2. To compensate for the permanent impacts to the onsite buffer area trees and shrubs common to the local area shall be planted in the established buffer areas adjacent to the homesite development area. No less than 3,614 square feet of existing onsite wetland buffer shall be enhanced to provide a minimum of a 1:1 (impacted to enhanced) area of compensatory buffer mitigation (Appendix B).

3. The outer boundary of this established protective buffer immediately adjacent to the new homesite area shall be clearly identified through the placement of

protective silt-fencing and a split-rail fence (or permanent fence type approved by King County). Standard King County buffer boundary signs shall also be affixed to the split-rail fence at no more than a 25-foot interval. The silt-fencing shall be removed upon homesite development completion.

4. The buffer enhancement area shall be cleared of non-native invasive species and debris. All removal actions shall be completed using hand tools to remove root structure without significant disruption of the soil profile. Prior to removal actions existing desirable native trees and shrubs shall be identified and then retained through the non-native invasive species removal process.

5. The buffer enhancement area (approximately 3,614 square feet) shall be planted with a variety of native species common to the local area and selected to provide structural diversity, habitat and food resources for wildlife common to the local area.

NUMBER	COMMON NAME - SCIENTIFIC NAME	SIZE
8	Western red cedar - *Thuja plicata*	2 gallon
4	Sitka spruce - *Picea sitchensis*	2 gallon
8	Big leaf maple – *Acer macrophyllum*	2 gallon
8	Douglas fir - *Pseudotsuga menziesii*	2 gallon
8	Black hawhorne - *Crataegus douglasii*	2 gallon
8	Crabapple - *Pyrus fusca*	2 gallon
44	**TOTAL TREES**	
20	Flowering current - *Ribes sanguineum*	1 gallon
15	Vine maple - *Acer circinatum*	1 gallon
20	Oceanspray - *Holodiscus discolor*	1 gallon
17	Hazelnut - *Corylus cornuta*	1 gallon
20	Snowberry - *Symphoricarpus albus*	1 gallon
15	Wild rose - *Rosa gymnocarpa*	1 gallon
107	**TOTAL SHRUBS**	

6. The wetland buffer areas once established shall NOT be regularly managed through mowing. However, ongoing actions shall remove invasive species without impacting soil stability and desirable plant establishment. The overall intent is to create a plant community that does not require regular maintenance once established.

7. Upon the completion of the implementation of the *Wetland Buffer Establishment and Enhancement Program* the project biologist shall prepare an *Implementation Report* that outlines the actions taken, construction observations, and a review of the established plant community. The *Implementation Report* shall include photo documentation to detail the actions taken and provided to King County within 30 days of the completion of the onsite implementation tasks.

8. Upon the approval of the *Implementation Report* by King County, the Permittee shall undertake a *Five-Year Performance Monitoring and Maintenance Program* to ensure the success of the *Wetland and Buffer Establishment and Enhancement Program* as determined by an established set of performance criteria.

9. During the *Five-Year Performance Monitoring and Maintenance Program* the planted areas shall be irrigated, and invasive shrubs shall be removed.

GOAL OF THE BUFFER ESTABLISHMENT AND ENHANCEMENT PROGRAM

The goal of the *Wetland Buffer Establishment and Enhancement Program* is to create a viable native plant community adjacent to the new homesite development area. To achieve the defined **GOAL**, the following **PERFORMANCE CRITERIA** are defined:

Performance Criterion #A1: As defined by plant counts 100% of the native trees and shrubs initially planted within the wetland and buffer areas shall exhibit survival through the end of the first growing season following initial planting.

Performance Criterion #A2: As defined by plant counts 80% of the native trees and shrubs (combined counts) initially planted within the wetland buffer areas shall exhibit survival through the end of the second, third, fourth, and fifth growing seasons following initial planting.

Performance Criterion #A3: As defined by sampling within the established wetland and buffer areas the presence of invasive shrubs shall **not** exceed 10% aerial coverage at the end of the second, third, fourth, and fifth growing seasons following initial planting.

SELECTED PLANTS

The plants selected for the wetland buffer enhancement areas shall be obtained as nursery stock. These selected species are native and commonly occur in the local area. The plant species prescribed are selected to increase plant diversity, match present onsite communities, increase wildlife habitats, and enhance the aquatic and terrestrial environments. Adequate irrigation shall be provided at the time of installation.

IMPLEMENTATION INSPECTION

Essential to the success of the *Wetland Buffer Establishment and Enhancement Program* is the accurate inspection of onsite activities immediately prior to and during the implementation phase. These activities include pre-planting site inspection, onsite inspection and technical direction during planting activities, post-planting site inspection and evaluation. The pre-planting site inspection allows the Permittee, the planting team,

and the onsite biologist to evaluate and, if necessary, make minor adjustments in the onsite planting steps. These steps include analysis of project site elevation features, project sequencing and timing, unforeseen required minor modifications to the original planting plan, and the establishment of environmental protections where required (silt fences, protective construction fencing).

All onsite implementation actions shall be completed at the direction of the project biologist. The project biologist shall complete onsite inspections, verify, and approve the following project tasks (at a minimum):

1. Marking of work areas and access corridors. Marking of desirable plants to be retained.
2. Removal of invasive species.
3. Nursery stock acceptance.
4. Plant installation.
5. Installation of the temporary irrigation system (if required).
6. Installation of protective fencing and buffer boundary signs.

The project biologist shall be responsible for ensuring that the species and sizes of native plants selected and noted within the final planting plan are utilized during implementation. Following the completion of onsite planting activities an *Implementation Report* shall be prepared and submitted to King County. The *Implementation Report* shall include a description of who completed the onsite actions, a description of the scope of work completed, a description of work specifications, and a detailed timeline of completed actions. The *Implementation Report* shall also include a project evaluation prepared by the project biologist.

IMPLEMENTATION SCHEDULE

PROJECT TASK	TASK SCHEDULE
Onsite pre-implementation meeting	Completed by Sept. 25, 202x
Removal of garbage, debris, and invasive species	Completed by Oct. 5, 202x
Planting of established buffer area.	Completed by Oct. 30, 202x
Installation of protective buffer boundary signs along outer boundary of established buffers.	Completed by Nov. 15, 202x
Implementation Report to King County	Completed by Dec. 15, 202x
Irrigation of mitigation area.	As needed following planting

The implementation may be modified depending upon permit approval dates. 202x represents year of implementation.

POST IMPLEMENTATION PROJECT MONITORING

Following the successful completion of the *Wetland Buffer Establishment and Enhancement Program* a *Five-Year Performance Monitoring and Maintenance Program* shall be undertaken. The purpose of this program is to ensure the success of the selected

buffer planting program as measured by an established set of performance criteria.

VEGETATION MONITORING STANDARDS

Plant survival shall be defined by a 100% count of initially installed native shrubs. The evaluation of the success of the *Wetland Buffer Establishment and Enhancement Program* shall be based on the established performance criteria. The defined performance criteria shall be applied at the times of yearly monitoring. The *Three-Year Performance Monitoring and Maintenance Program* is designed to be completed by the Permittee with technical assistance from the project biologist.

1. As a part of each monitoring period the Permittee shall count the number of live plants which were planted within the established wetland and buffer areas (100% count). Plants shall be identified to species and observations of general plant condition (plant health, amount of new growth) are to be recorded for each plant.

2. As a part of each monitoring period the Permittee shall estimate the aerial coverage (as if the observer were looking straight down from above) of these invasive shrubs. Undesirable plants include blackberries, Scot's broom, ivy, and holly.

3. The Permittee shall take photographs that show the restored wetland buffer areas. During the five-year monitoring period photos shall be taken in the same direction and at the same location to provide a series of photos. These photos shall show plant growth, plant species, and plant coverage.

4. Upon the completion of each annual monitoring period the Permittee shall prepare a letter report defining methods, observations, photos, and results along with the date the observations were completed. Each report shall be sent to King County.

MONITORING SEQUENCE

MONITORING YEAR	PLANT COMMUNITY MONITORING	SUBMITTAL OF MONITORING REPORT
YEAR-1	on or about Sept. 15, 202x+1	report due Oct. 15, 202x+1
YEAR-2	on or about Sept. 15, 202x+2	report due Oct. 15, 202x+2
YEAR-3	on or about Sept. 15, 202x+3	report due Oct. 5, 202x+3
YEAR-4	on or about Sept. 15, 202x+4	report due Oct. 5, 202x+4
YEAR-5	on or about Sept. 15, 202x+5	report due Oct. 5, 202x+5

202x represents year of implementation

VEGETATION MAINTENANCE PLAN

Maintenance of the enhanced wetland buffer areas may be required to assure their long-term environmental functions. Such maintenance shall be identified during the monitoring

period and shall be undertaken at the direction of the project biologist. The overall objective is to establish undisturbed plant communities that do not require maintenance. Activities may include, but are not limited to, the removal of invasive non-native vegetation and the irrigation of selected areas. Established maintenance activities include the removal of any trash within the wetland or buffer.

REMOVAL OF INVASIVE NON-NATIVE SHRUB AND HERBACEOUS VEGETATION

As a contingency, should the removal of invasive non-native shrubs and herbaceous vegetation become necessary, the project proponent shall contact King County to establish and define specific actions to be taken. Resultant contingency plan activities shall be implemented when the ongoing vegetation monitoring program indicates that invasive shrubs and herbaceous vegetation (blackberries, Scot's broom, holly, ivy, reed canarygrass, thistles) are becoming dominant in the community (greater than 10% aerial coverage). The following invasive vegetation removal program shall be implemented to ensure the establishment of desirable plant communities.

MONITORING YEAR	FIRST REMOVAL ACTION	SECOND REMOVAL ACTION	THIRD REMOVAL ACTION
YEAR-1	on or about April 30, 202x+1	on or about June 30, 202x+1	on or about Aug. 15, 202x+1
YEAR-2	on or about April 30, 202x+2	on or about June 30, 202x+2	on or about Aug. 15, 202x+2
YEAR-3	on or about April 30, 202x+3	on or about June 30, 202x+3	on or about Aug. 15, 202x+3
YEAR-4	on or about April 30, 202x+4	on or about June 30, 202x+4	on or about Aug. 15, 202x+4
YEAR-5	on or about April 30, 202x+5	on or about June 30, 202x+5	on or about Aug. 15, 202x+5

202x represents year of implementation.

At the direction of the project biologist additional removal actions (if required) shall also be undertaken to ensure the establishment of desirable plant communities.

CONTINGENCY PLAN

As a contingency, should the proposed *Wetland Buffer Establishment and Enhancement Program* fail to meet any of the performance criteria, the Permittee shall undertake required remedial actions. Where plant survival is the failing component, the Permittee shall replant and ensure the success of this second planting which would be held to the same standard of success as measured by performance criteria and monitoring processes. Where non-native, invasive vegetation exceeds 10% aerial coverage the Permittee shall undertake removal actions. Such removal actions shall be completed using hand tools or pulling the plants by hand to remove the invasive vegetation without disrupting the soil profile. All cut or pulled vegetation shall be removed from the mitigation area and disposed in an approved location. Herbicides shall only be used following

approval by King County. All herbicide applications shall be completed by a licensed professional.

Should additional remedial actions be required, the Permittee shall meet with King County to establish and define actions to be taken to meet the desired goal of this mitigation program.

TEMPORARY IRRIGATION

The Permittee shall ensure that a minimum of **one (1) inch of water is supplied each week** to the buffer restoration area between May 1 and October 15 for at least the first two years following initial planting. The calculated amount of required water shall include both natural rainfall and temporary irrigation. The need for additional years of irrigation shall be determined based onsite conditions and overall plant survival. The amount of water supplied to the buffer restoration area shall be increased if onsite monitoring defines such a need.

PLANTING NOTES

All plant materials (to include the erosion control seed mix) utilized within the restored wetland, drainage corridor, and the associated buffer shall be native to the Puget Sound Region. The onsite biologist shall inspect plant materials to assure the appropriate plant schedule and plant characteristics are met. The Permittee shall warrant that all plants would remain alive and healthy for a period of one year following completion of planting activities. The Permittee shall replace all dead and unhealthy plants with plants of the same specifications.

FINANCIAL GUARANTEE

Financial guarantee would be provided for this project consistent with the provision of Kent City Code 11.06.570(C)(6). The amount of this guarantee has been defined using the *King County Bond Quantity Worksheet* (Appendix A).

STANDARD OF CARE

This document has been completed by Habitat Technologies for use by **CES NW Inc.** Prior to extensive site planning, this document should be reviewed and verified by applicable permitting agencies. Habitat Technologies has provided professional services that are in accordance with the degree of care and skill generally accepted in the nature of the work accomplished. No other warranties are expressed or implied. Habitat Technologies is not responsible for design costs incurred before this document is approved by the appropriate resource and permitting agencies.

Bryan W. Peck

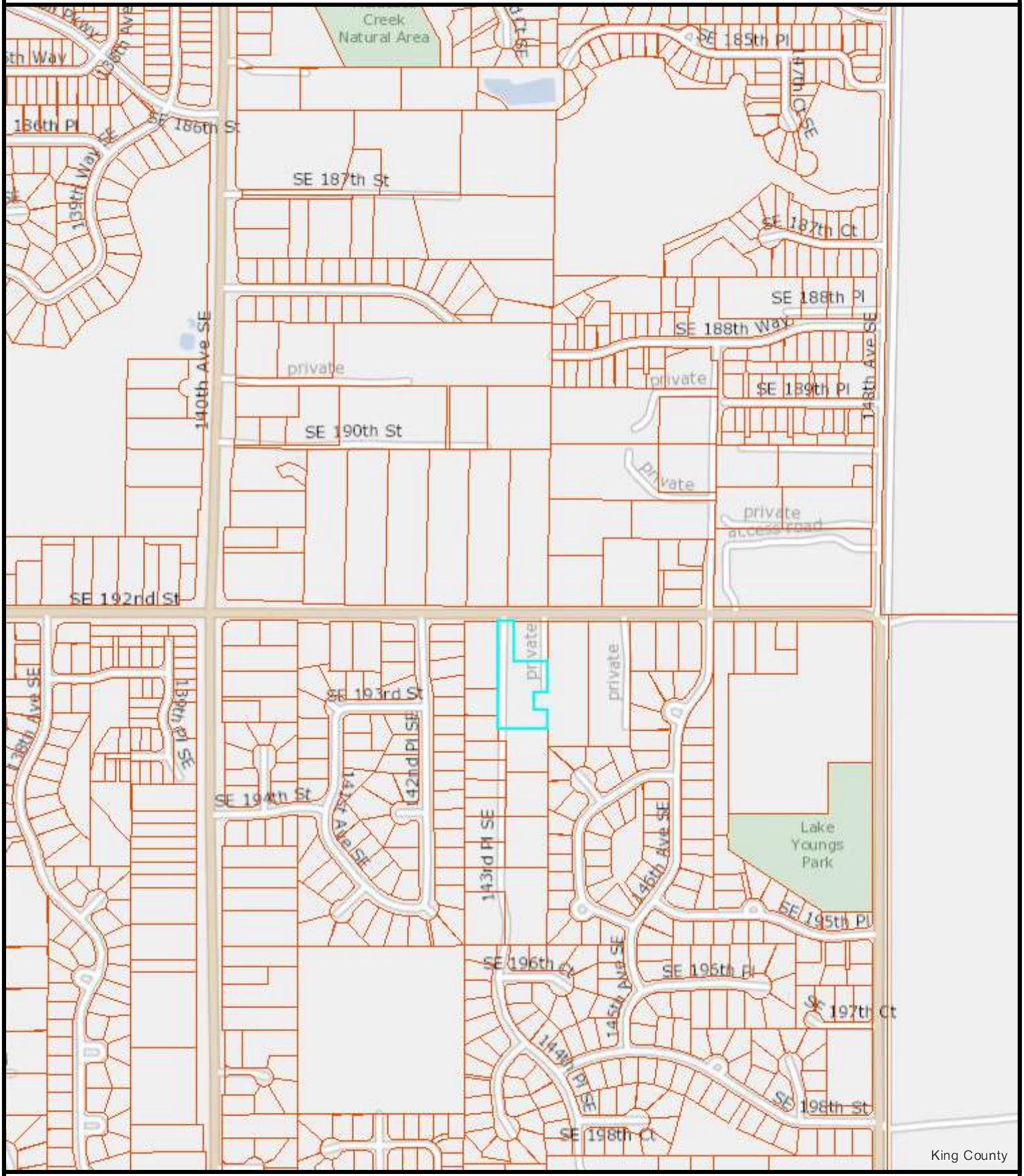
Bryan W. Peck
Senior Wetland Biologist

Thomas D. Deming

Thomas D. Deming, SPWS
Habitat Technologies

FIGURES

Figure 1 Site Vicinity



Date: 1/16/2025 Notes:

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King County

APPENDIX A – Bond Quantity Worksheet

King County

Critical Areas Mitigation
Bond Quantity Worksheet

Project Name: Single-family home **Date:** 16-Apr-25 **Prepared by:** Habitat Technologies

Project Number: CAEX25-0003 **Project Description:** Buffer Enhancement

Location: 143rd Place SE (parcel 0322059088) **Applicant:** CES NW **Phone:** (253) 848-4282

PLANT MATERIALS (includes labor cost for plant installation)

Type	Unit Price	Unit	Quantity	Description	Cost
PLANTS: Potted, 4" diameter, medium	$5.00	Each			
PLANTS: Container, 1 gallon, medium soil	$11.50	Each	147.00		$ 1,690.50
PLANTS: Container, 2 gallon, medium soil	$20.00	Each			$ -
PLANTS: Container, 5 gallon, medium soil	$36.00	Each			$ -
PLANTS: Seeding, by hand	$0.50	SY			$ -
PLANTS: Slips (willow, red-osier)	$2.00	Each			$ -
PLANTS: Stakes (willow)	$2.00	Each			$ -
PLANTS: Stakes (willow)	$2.00	Each			$ -
PLANTS: Flats/plugs	$2.00	Each			$ -
				TOTAL	**$ 1,690.50**

INSTALLATION COSTS (LABOR, EQUIPMENT, & OVERHEAD)

Type	Unit Price	Unit			Cost
Compost, vegetable, delivered and spread	$37.88	CY	3.00		$ 113.64
Decompacting till/hardpan, medium, to 6" depth	$1.57	CY			$ -
Decompacting till/hardpan, medium, to 12" depth	$1.57	CY			$ -
Hydroseeding	$0.51	SY			$ -
Labor, general (landscaping other than plant installation)	$40.00	HR			
Labor, general (construction)	$40.00	HR	32.00		$ 1,280.00
Labor: Consultant, supervising	$55.00	HR			
Labor: Consultant, on-site re-design	$95.00	HR	8.00		$ 760.00
Rental of decompacting machinery & operator	$70.00	HR			$ -
Sand, coarse builder's, delivered and spread	$42.00	CY			$ -
Staking material (set per tree)	$7.00	Each			$ -
Surveying, line & grade	$250.00	HR			$ -
Surveying, topographical	$250.00	HR			$ -
Watering, 1" of water, 50' soaker hose	$3.62	MSF			$ -
Irrigation - temporary	Garden hose		1.00		$ 200.00
Irrigation - buried	$4,500.00	Acre			$ -
Tilling topsoil, disk harrow, 20hp tractor, 4"-6" deep	$1.02	SY			$ -
				TOTAL	**$ 2,353.64**

HABITAT STRUCTURES*

ITEMS	Unit Cost	Unit			Cost
Fascines (willow)	$ 2.00	Each			$ -
Logs, (cedar), w/ root wads, 16"-24" diam., 30' long	$1,000.00	Each			$ -
Logs (cedar) w/o root wads, 16"-24" diam., 30'	$400.00	Each			$ -
Logs, w/o root wads, 16"-24" diam., 30' long	$245.00	Each			$ -
Logs w/ root wads, 16"-24" diam., 30' long	$460.00	Each			$ -
Rocks, one-man	$60.00	Each			$ -
Rocks, two-man	$120.00	Each			$ -
Root wads	$163.00	Each			$ -
Spawning gravel, type A	$22.00	CY			$ -
Weir - log	$1,500.00	Each			$ -
Weir - adjustable	$2,000.00	Each			$ -
Woody debris, large	$163.00	Each			$ -
Snags - anchored	$400.00	Each			$ -
Snags - on site	$50.00	Each			$ -
Snags - imported	$800.00	Each			$ -
* All costs include delivery and installation				*TOTAL*	**$ -**

EROSION CONTROL

ITEMS	Unit Cost	Unit			Cost
Backfill and Compaction-embankment	$ 4.89	CY			$ -
Crushed surfacing, 1 1/4" minus	$30.00	CY			$ -
Ditching	$7.03	CY			$ -
Excavation, bulk	$4.00	CY			$ -
Fence, silt	$1.60	LF	381.00		$ 609.60

Jute Mesh	$1.26	SY			$ -
Mulch, by hand, straw, 2" deep	$1.27	SY			$ -
Mulch, by hand, wood chips, 2" deep	$3.25	SY			$ -
Mulch, by machine, straw, 1" deep	$0.32	SY			$ -
Piping, temporary, CPP, 6"	$9.30	LF			$ -
Piping, temporary, CPP, 8"	$14.00	LF			$ -
Piping, temporary, CPP, 12"	$18.00	LF			$ -
Plastic covering, 6mm thick, sandbagged	$2.00	SY			$ -
Rip Rap, machine placed, slopes	$33.98	CY			$ -
Rock Constr. Entrance 100'x15'x1'	$3,000.00	Each			$ -
Rock Constr. Entrance 50'x15'x1'	$1,500.00	Each			$ -
Sediment pond riser assembly	$1,695.11	Each			$ -
Sediment trap, 5' high berm	$15.57	LF			$ -
Sediment trap, 5' high berm w/spillway incl. riprap	$59.60	LF			$ -
Sodding, 1" deep, level ground	$5.24	SY			$ -
Sodding, 1" deep, sloped ground	$6.48	SY			$ -
Straw bales, place and remove	$600.00	TON			$ -
Hauling and disposal	$20.00	CY			$ -
Topsoil, delivered and spread	$35.73	CY			$ -
				TOTAL	**$ 609.60**

GENERAL ITEMS

ITEMS	Unit Cost	Unit			Cost
Fencing, chain link, 6' high	$18.89	LF			$ -
Fencing, chain link, corner posts	$111.17	Each			$ -
Fencing, chain link, gate	$277.63	Each			$ -
Fencing, split rail, 3' high (2-rail)	$10.54	155			$ 1,633.70
Fencing, temporary (NGPE)	$1.20	LF			$ -
Signs, sensitive area boundary (inc. backing, post, install)	$28.50	Each	7.00		$ 199.50
				TOTAL	**$ 1,833.20**

OTHER

				(Construction Cost Subtotal)	**$ 6,486.94**
ITEMS	Percentage of Construction Cost	Unit			Cost
Mobilization	10%	1			$ 2,041.00
Contingency	30%	1			$ 6,124.00
				TOTAL	**$ 8,165.00**

MAINTENANCE AND MONITORING

NOTE: Projects with multiple permit requirements may be required to have longer monitoring and maintenance terms. This will be evaluated on a case-by-case basis for development applications. Monitoring and maintance ranges may be assessed anywhere from 5 to 10 years.

Maintenance, annual (by owner or consultant)					
Less than 1,000 sq.ft. and buffer mitigation only	$ 1.08	SF		(3 X SF total for 3 annual events; Includes monitoring)	$ -
Less than 1,000 sq.ft. with wetland or aquatic area mitigation	$ 1.35			(3 X SF total for 3 annual events; Includes monitoring)	$ -
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of buffer mitigation	$ 180.00	EACH	15.00	(4hr @$45/hr)	$ 2,700.00
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of wetland or aquatic area mitigation	$ 270.00	EACH		(6hr @$45/hr)	$ -
Larger than 5,000 sq.ft. but < 1 acre -buffer mitigation only	$ 360.00	EACH		(8 hrs @ 45/hr)	
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area mitigation	$ 450.00	EACH		(10 hrs @ $45/hr)	$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area mitigation	$ 1,600.00	DAY		(WEC crew)	$ -
Larger than 5 acres - buffer and / or wetland or aquatic area mitigation	$ 2,000.00	DAY		(1.25 X WEC crew)	$ -
Monitoring, annual (by owner or consultant)					
Larger than 1,000 sq.ft. but less than 5,000 wetland or buffer mitigation	$ 720.00	EACH	7.00	(8 hrs @ 90/hr)	$ 5,040.00
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area impacts	$ 900.00	EACH		(10 hrs @ $90/hr)	
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area impacts	$ 1,440.00	DAY		(16 hrs @ $90/hr)	$ -
Larger than5 acres - buffer and / or wetland or aquatic area impacts	$ 2,160.00	DAY		(24 hrs @ $90/hr)	$ -
				TOTAL	**$ 7,740.00**

Total	**$22,391.94**

APPENDIX B – Site Plan

King County

Department of Permitting and Environmental Review

Residential Site Plan Template

Ref: KCC 21a.12.030

Max. Impervious Surface Allowed: 70%

Max. Bldg. Height Allowed: 35'/45'

Ref: KCC 21a.12.170

Min. Blg. Setback From Street: 10'

Min. Garage Setback From Street: 20'

Min. Blg. Setback From Interior: 5'

Permit Center validation:

- ○ Zoning
- ○ Site Review Not Applicable

Validated Signature: _____

Login Initials _____ Date: _____

Engineering / Drainage Approval

Signature: _____

Date: _____

Critical Areas Approval

Signature: _____

Date: _____

Clearing / Grading Approval

Signature: _____

Date: _____

Fire Approval

Signature: _____

Date: _____

LOT "A" OF BLA #16-0001

A PORTION OF NW 1/4 OF THE NE 1/4, OF SECTION 3, TOWNSHIP 22 NORTH, RANGE 5 EAST, OF THE WILLAMETTE MERIDIAN, KING COUNTY, WASHINGTON.

SITE PLAN

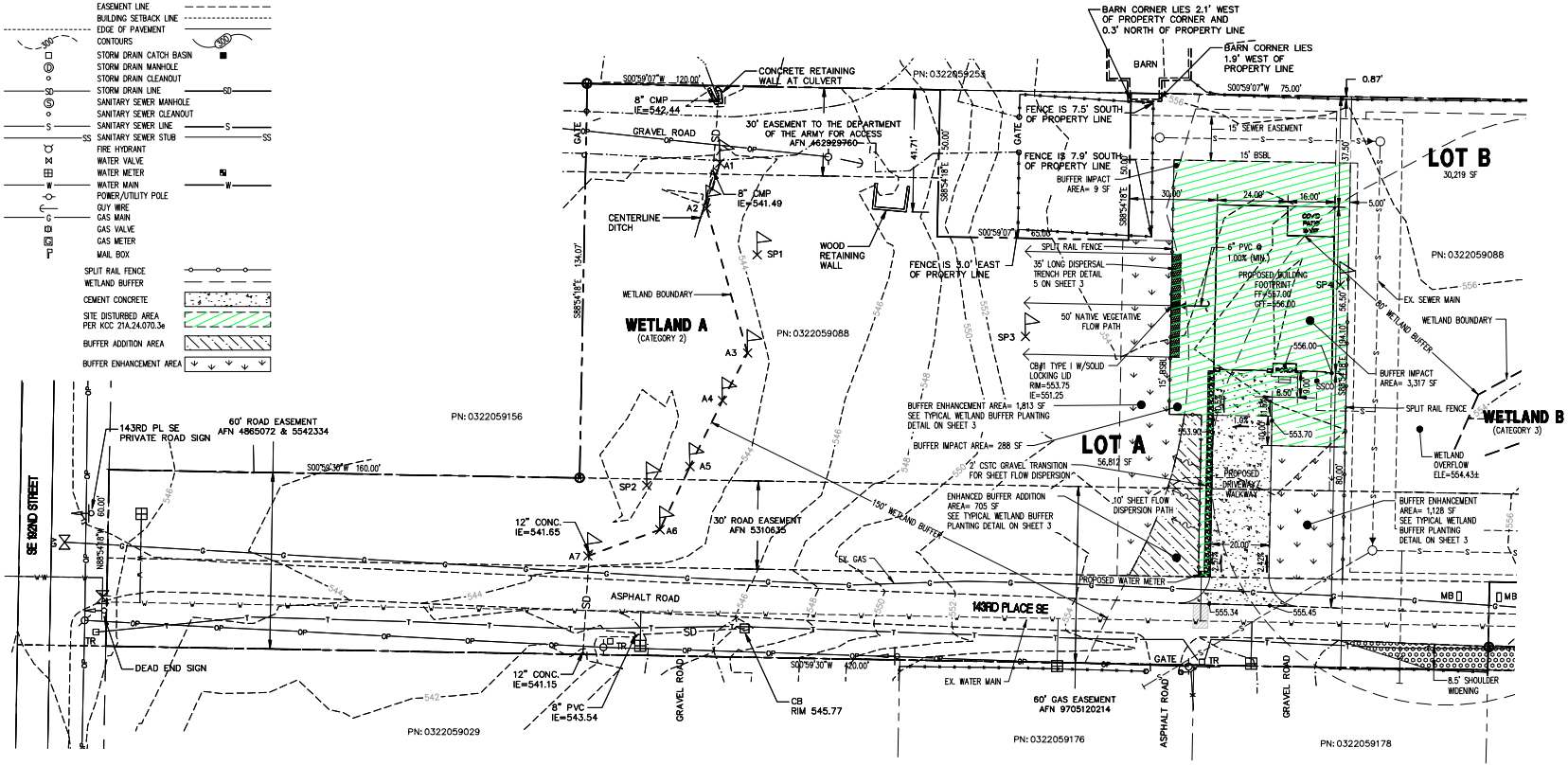
SITE DATA

TOTAL LOT AREA:	56,812 SF
ROOF AREA:	2,262 SF
DRIVEWAY/CONC. WALK:	1,822 SF
TOTAL IMPERVIOUS:	4,084 SF
CLEARED AREA:	6,761 SF
DISTURBED SITE AREA PER KCC 21A.24.070.A.3.e:	5,664 SF
DISTURBED AREA ALLOWED:	5,681 SF
PERMANENT BUFFER IMPACT AREA:	3,614 SF
TOTAL BUFFER IMPACT AREA:	3,614 SF
TOTAL ENHANCED BUFFER ADDITION AREA:	705 SF
TOTAL BUFFER ENHANCEMENT AREA:	2,941 SF

1 inch = 20 feet.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY LINE	
	RIGHT OF WAY LINE	
	EASEMENT LINE	
	BUILDING SETBACK LINE	
	EDGE OF PAVEMENT	
550	CONTOURS	550
	STORM DRAIN CATCH BASIN	
	STORM DRAIN MANHOLE	
	STORM DRAIN CLEANOUT	
SD	STORM DRAIN LINE	SD
	SANITARY SEWER MANHOLE	
	SANITARY SEWER CLEANOUT	
S	SANITARY SEWER LINE	S
SS	SANITARY SEWER STUB	SS
	FIRE HYDRANT	
	WATER VALVE	
	WATER METER	
W	WATER MAIN	W
	POWER/UTILITY POLE	
	GUY WIRE	
G	GAS MAIN	
	GAS VALVE	
	GAS METER	
	MAIL BOX	
	SPLIT RAIL FENCE	
	WETLAND BUFFER	
	CEMENT CONCRETE	
	SITE DISTURBED AREA PER KCC 21A.24.070.3e	
	BUFFER ADDITION AREA	
	BUFFER ENHANCEMENT AREA	



Permit Number: CAEX-25-0003 Parcel Number: 032205-9088 Applicant Name: VERISTONE HOMES Site Address: 19200 BLOCK OF 143RD PL. SE RENTON, WA 98058

Engineering Scale: 1" = 1"=20'

Sheet 1 of 3

King County

Department of Permitting and Environmental Review

Residential TESC Template

RECOMMENDED CONSTRUCTION SEQUENCE

1. Hold the pre-construction meeting, if required
2. Post sign with name and phone number of TESC supervisor (may be consolidated with the required notice of construction sign).
3. Flag or fence clearing limits.
4. Install catch basin protection, if required.
5. Grade and install construction entrance(s)
6. Install perimeter protection (silt fence, brush barrier, etc.).
7. Construct sediment pond and traps, if required.
8. Grade and stabilize construction roads.
9. Construct surface water controls (interceptor dikes, pipe slope drains, etc.) simultaneously with clearing and grading for project development.
10. Mainatain erosion control measures in accordance with King County standards and manufacture's recommendations.
11. Relocate erosion control measure, or install new measures so that as site conditions change, the erosion and sediment control is always in accordance with the King County Erosion and Sedimentation Control Standards.
12. Cover all areas that will be unworked for more than seven days during the dry season or two days during the wet season with straw, wood fiber mulch, compost, plastic sheeting, or equivalent.
13. Stabilize all areas within seven days of reaching final grade.
14. Seed, sod, stabilize, or cover any areas to remain unworked for more than 30 days.
15. Upon completion of the projct, stabilize all disturbed areas and remove BMP's if appprriate.

Engineering / Drainage Approval

Signature: _____

Date: _____

Clearing / Grading Approval

Signature: _____

Date: _____

SITE DATA

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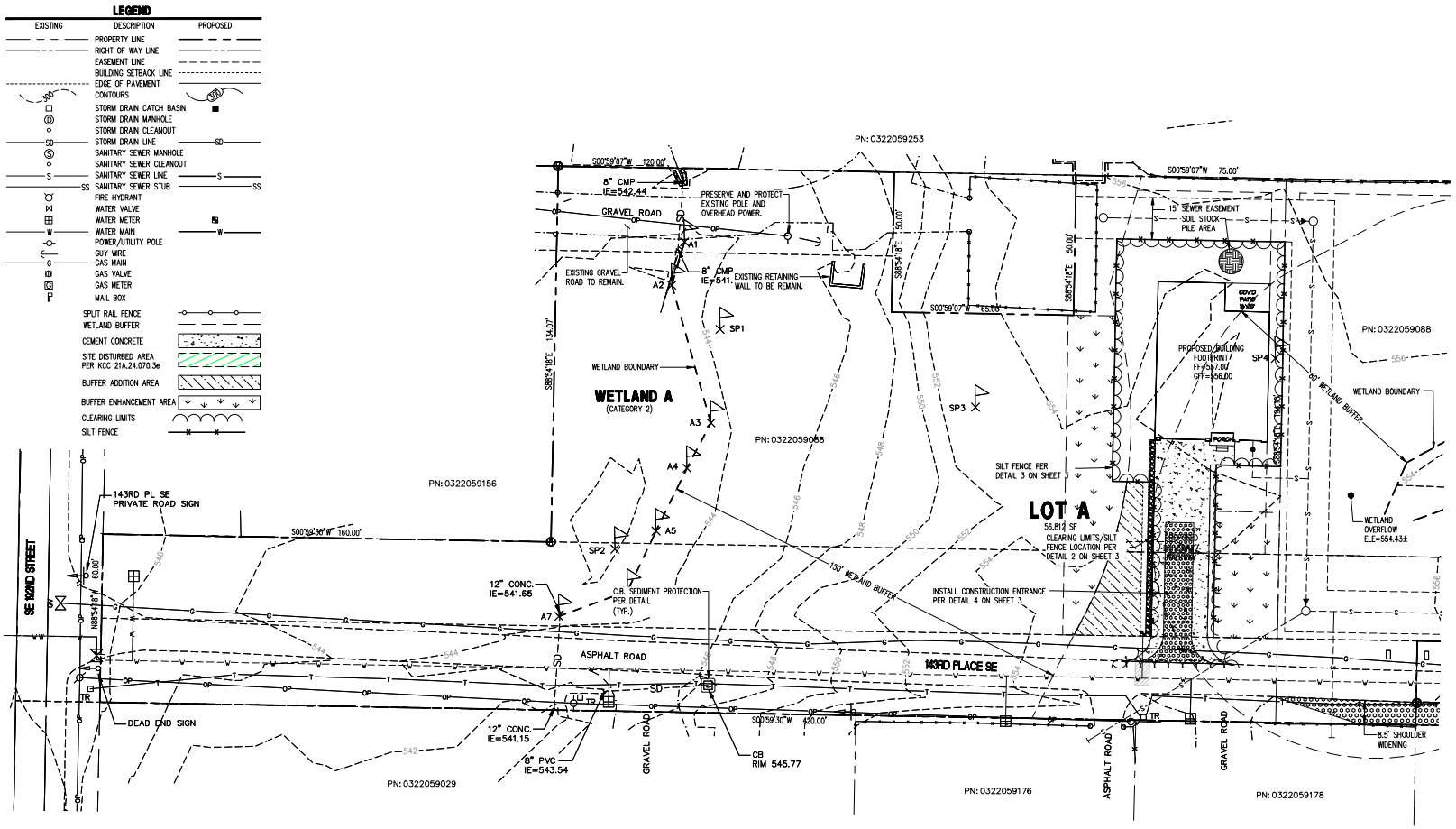
A PORTION OF NW 1/4 OF THE NE 1/4, OF SECTION 3, TOWNSHIP 22 NORTH, RANGE 5 EAST, OF THE WILLAMETTE MERIDIAN, KING COUNTY, WASHINGTON.

TESC PLAN



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Sheet 2 of 3

LOT "A" OF BLA #16-0001

A PORTION OF NW 1/4 OF THE NE 1/4, OF SECTION 3, TOWNSHIP 22 NORTH, RANGE 5 EAST, OF THE WILLAMETTE MERIDIAN, KING COUNTY, WASHINGTON.

NOTES AND DETAILS

King County

Department of Permitting and Environmental Review

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Validated Signature _____

Login Initials _____ Date: _____

Engineering / Drainage Approval

Signature: _____

Date: _____

Critical Areas Approval

Signature: _____

Date: _____

Clearing / Grading Approval

Signature: _____

Date: _____

Fire Approval

Signature: _____

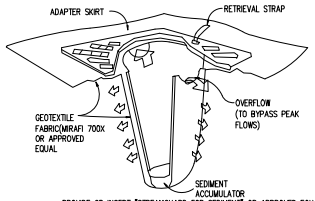
Date: _____

EROSION AND SEDIMENT CONTROL NOTES

1. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (KCSWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.).
7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.
8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC COVER METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
9. ANY AREA NEEDING ESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
11. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL.
14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE CITY INSPECTOR FOR REVIEW.

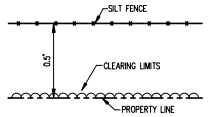
SILT FENCE NOTES

1. FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY FASTENED AT BOTH ENDS TO POSTS.
2. POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).
3. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 8 INCHES WIDE AND 12 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. THIS TRENCH SHALL BE BACKFILLED WITH WASHED GRAVEL. 2:1
4. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 24 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
5. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 24 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE NTS STAPLED TO EXISTING TREES.
6. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING IS USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ABOVE NOTES APPLYING.
7. FILTER FABRIC FENCES SHALL NOT BE REMOVED BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
8. FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
9. SILT FENCES WILL BE INSTALLED PARALLEL TO ANY SLOPE CONTOURS.
10. CONTRIBUTING LENGTH TO FENCE WILL NOT BE GREATER THAN 100 FEET. 11. DO NOT INSTALL BELOW AN OUTLET PIPE OR WEIR.
12. INSTALL DOWN SLOPE OF EXPOSED AREAS. 13. DO NOT DRIVE OVER OR FILL OVER SILT FENCES.

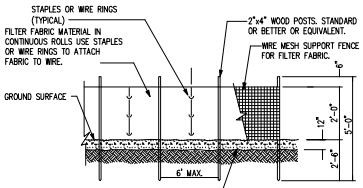


PROVIDE CB INSERT "STREAMGUARD FOR SEDIMENT" OR APPROVED EQUAL
MANUFACTURER'S NAME: FOSS ENVIRONMENTAL
ADDRESS: 200 SW MICHIGAN STREET SEATTLE, WA 98106
TELEPHONE: FOR INFORMATION: (800) 909-3677

1 CB SEDIMENT PROTECTION
NTS



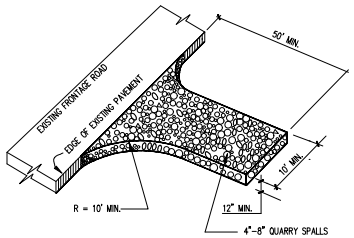
2 CLEARING LIMITS/SILT FENCE LOCATION
NTS



NOTES:

1. PLACE 1' OF 3/4"-1 1/2" WASHED ROCK OR PEA GRAVEL ON BOTH SIDES OF FENCE TO CREATE A BEVEL SHAPE.
2. FABRIC SHALL COVER BOTTOM OF 8"x12" TRENCH AND EXTEND BEYOND THE LIMITS OF THE GRAVEL IN ORDER TO MAINTAIN AN EXCESS OVERLAP OF 2" MINIMUM AS SHOWN IN TYPICAL CROSS-SECTION.

3 SILT FENCE DETAIL
NTS



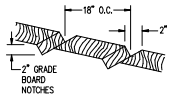
1. MATERIAL SHALL BE 4 INCH TO 8 INCH QUARRY SPALLS (4 TO 6 INCH FOR RESIDENTIAL SINGLE FAMILY LOTS) AND MAY BE TOP-DRESSED WITH 1 INCH TO 3 INCH ROCK. (STATE STANDARD SPECIFICATIONS, SECTION 8-15.)

2. THE ROCK PAD SHALL BE AT LEAST 12 INCHES THICK AND 50 FEET LONG (20 FEET FOR SITES WITH LESS THAN 1 ACRE OF DISTURBED SOIL). WIDTH SHALL BE THE FULL WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA. SMALLER PADS MAY BE APPROVED FOR SINGLE-FAMILY RESIDENTIAL AND SMALL COMMERCIAL SITES.

3. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.

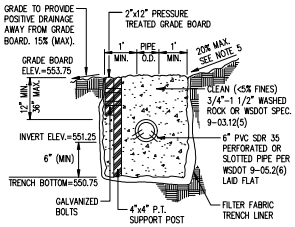
4. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE WHEELS, THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION FACILITY OR THROUGH A SILT FENCE.

4 CONSTRUCTION ENTRANCE
NTS



DISPERSAL TRENCH

DISPERSAL TRENCH LENGTH = 34.00-FT.
DISPERSAL TRENCH WIDTH = 3.00-FT.
GRADE BOARD ELEVATION = 553.75
IE=551.25 (6" PERFORATED PIPE)
TRENCH BOTTOM ELEV.=550.75

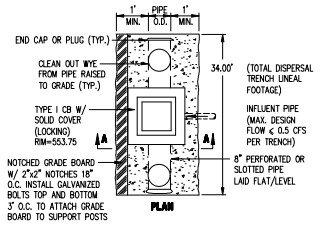


SECTION A-A

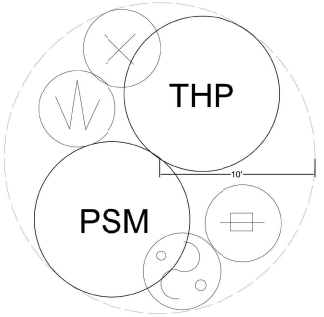
5 FLOW DISPERSAL TRENCH
NOT TO SCALE

NOTES

1. THIS TRENCH SHALL BE CONSTRUCTED TO PREVENT POINT DISCHARGE AND/OR EROSION.
2. TRENCHES MAY BE PLACED NO CLOSER THAN 50 FEET TO ONE ANOTHER (100 FEET ALONG FLOWLINE).
3. TRENCH AND GRADE BOARD MUST BE LEVEL. ALIGN TO FOLLOW CONTOURS OF SITE.
4. SUPPORT POST SPACING AS REQUIRED BY SOIL CONDITIONS TO ENSURE GRADE BOARD REMAINS LEVEL.
5. 15% MAXIMUM UNLESS OTHERWISE EVALUATED AND APPROVED, SEE SECTION C.2.1.1



PLAN



TYPICAL WETLAND BUFFER PLANTING
SCALE 1:10

NATIVE PLANT LIST

SYMBOL	QTY	DESCRIPTION	SIZE
		TREES	
ACM		Acer macophyllum Big Leaf Maple	2 Gal. Min. @10' OC
CRA		Crataegus douglasii Western Hawthrone	2 Gal. Min. @10' OC
PIS		Picea sitchensis Sitka Spruce	2 Gal. Min. @10' OC
PSM	1	Pseudotsuga menziesii Douglas Fir	2 Gal. Min. @10' OC
THP	1	Thuja plicata Western Red Cedar	2 Gal. Min. @10' OC
PYR		Pyrus 'usca Western Crabapple	2 Gal. Min. @10' OC
		SHRUBS	
ACI		Acer circinatum Vine Maple	1 Gal. Min. @ 5' OC
COR	1	Corylus cornuta Hazlenut	1 Gal. Min. @ 5' OC
HOL	1	Holodiscus discolor Oceansoray	1 Gal. Min. @ 5' OC
ROS	1	Rosa gymnocarpa Wild Rose	1 Gal. Min. @ 5' OC
SYM	1	Symphoricarpos albus Snowberry	1 Gal. Min. @ 5' OC
RIB		Ribes sanguineum Flowering Currant	1 Gal. Min. @ 5' OC

NOTE: PLANTS IN THE BUFFER CAN BE SUPPLEMENTED WITH PLANTS IN THE TABLE.

Permit Number: CAEX-25-0003 Parcel Number: 032205-9088 Applicant Name: VERISTONE HOMES Site Address: 19200 BLOCK OF 143RD PL. SE RENTON, WA 98058

Engineering Scale: 1" = AS NOTED

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